

HEARING TO REVIEW PENDING CLIMATE LEGISLATION

HEARING BEFORE THE COMMITTEE ON AGRICULTURE HOUSE OF REPRESENTATIVES ONE HUNDRED ELEVENTH CONGRESS

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HEARING TO REVIEW PENDING CLIMATE LEGISLATION

THURSDAY, JUNE 11, 2009

HOUSE OF REPRESENTATIVES,
COMMITTEE ON AGRICULTURE,
Washington, D.C.

The Committee met, pursuant to call, at 2:00 p.m., in Room 1300, Longworth House Office Building, Hon. Collin C. Peterson [Chairman of the Committee] presiding.

Members present: Representatives Peterson, Holden, McIntyre, Boswell, Cardoza, Scott, Herseth Sandlin, Cuellar, Costa, Ellsworth, Walz, Schrader, Halvorson, Dahlkemper, Massa, Bright, Markey, Kratovil, Schauer, Kissell, Boccieri, Murphy, Pomeroy, Childers, Minnick, Lucas, Goodlatte, Moran, Johnson, Graves, Rogers, King, Neugebauer, Conaway, Fortenberry, Schmidt, Smith, Latta, Roe, Luetkemeyer, Thompson, Cassidy, and Lummis.

Staff present: Nona Darrell, Adam Durand, John Konya, Scott Kuschnider, Robert L. Larew, Merrick Munday, John Riley, Lisa Shelton, Anne Simmons, Debbie Smith, Kevin Kramp, Josh Mathis, Josh Maxwell, Bill O'Conner, Nicole Scott, and Jamie Mitchell.

OPENING STATEMENT OF HON. COLLIN C. PETERSON, A REPRESENTATIVE IN CONGRESS FROM MINNESOTA

The CHAIRMAN. The Committee will come to order.

Good afternoon, everybody. Welcome to toady's hearing of the House Agriculture Committee.

Secretary Vilsack, thank you for being here with us today. This is the first time that we have had an opportunity to have you to testify before the House Agriculture Committee, although you have been up here to meet with us, and I have met with you, as you know, many times.

And you have one of the toughest jobs in Washington, and I think that you are off to a good start, so far. So welcome to the Committee, and we look forward to your thoughts today as you share your thoughts on climate change legislation that we are considering and offer suggestions to improve it.

I am also interested to get an update from you on the Biofuels Working Group, which includes USDA and is supposed to be involved in the peer review of the RFS2 rule that EPA recently issued.

Today's hearing is an opportunity for the Members of the House Agriculture Committee to review climate change legislation that Congress is considering, and to examine the impact it will have on agriculture in rural America. I know that Members have many

questions about the proposals included in the legislation as it is currently drafted. I hope that witnesses joining us here today will be able to help us better understand what is being proposed and what can be done to improve the legislation.

I look forward to hearing from our witnesses today and welcome everybody to the Agriculture Committee.

I would to ask unanimous consent for the materials at each Member's place on top of the folders be submitted for the hearing record.

Without objection, so ordered.

[The prepared statement of Mr. Peterson follows:]

PREPARED STATEMENT OF HON. COLLIN C. PETERSON, A REPRESENTATIVE IN
CONGRESS FROM MINNESOTA

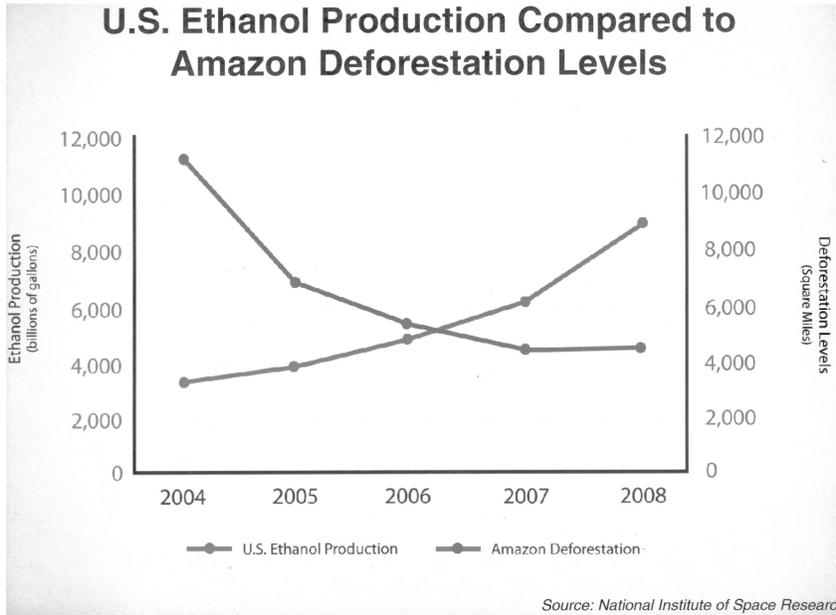
Good morning and welcome to today's hearing of the House Agriculture Committee. Secretary Vilsack, thank you for being here today. This is the first time that we've had an opportunity to have you testify before the House Agriculture Committee, although you and I have been able to meet very regularly since you were named Secretary of Agriculture, and I know that you have heard from other Members of this Committee as well. You have one of the toughest jobs in Washington, and I think you are off to a good start, so far.

I hope that today you can share with us your thoughts on the climate change legislation we're considering and offer suggestions to improve it. I'm also interested to get an update from you on the Biofuels Working Group, which includes USDA and is supposed to be involved in the peer review of the RFS2 rule that EPA recently issued.

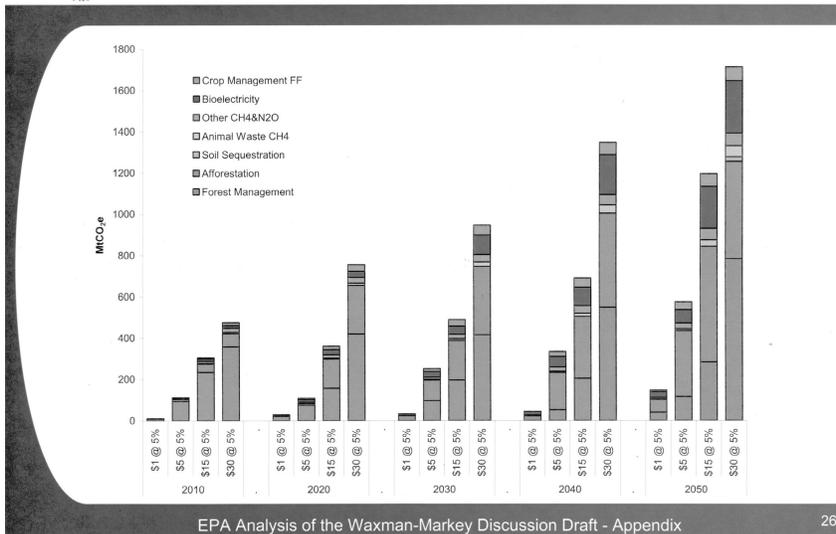
Today's hearing is an opportunity for Members of the House Agriculture Committee to review climate change legislation that Congress is considering and to examine the impact it will have on agriculture and rural America. I know that Members have many questions about the proposals included in the legislation as it is currently drafted, and I hope that the witnesses joining us here today will be able to help us better understand what is being proposed and what can be done to improve the legislation.

I look forward to hearing from our witnesses today, and the Agriculture Committee will continue to address these important issues as Congress moves forward with energy and climate change legislation this year. We've got a lot to cover, so let's get started.

ATTACHMENT



FASOM GHG Mitigation Potential



The CHAIRMAN. And, with that, I would recognize the Ranking Member, Mr. Lucas, from Oklahoma for his statement.

Oh, and we are going to have opening statements by myself, Mr. Lucas, Mr. Holden, Mr. Goodlatte. And for the rest of you, we will allow you to make a statement but they will be closing statements. And so, if you are here at the end of the hearing, you will be allowed to make a closing statement.

So, with that, we will proceed.

Mr. Lucas?

**OPENING STATEMENT OF HON. FRANK D. LUCAS, A
REPRESENTATIVE IN CONGRESS FROM OKLAHOMA**

Mr. LUCAS. Thank you, Mr. Chairman. And I do appreciate your willingness to allow the Chairman and the Ranking Member of the Subcommittee of primary jurisdiction to also have an opening statement, and to provide Members of both sides the opportunity to express their observations from this important set of hearings. Thank you for that cooperation. And even more so, thank you for calling this hearing to review Waxman-Markey, the bill.

I have said many times before, and I will say it again today, the most important thing we can do for our agricultural community is to allow the legislative process to work, to take the time to understand the consequences of our actions.

There are still many unanswered questions surrounding the Waxman-Markey bill. And yet we have Speaker Pelosi and Chairman Waxman working to try and force this thing through Congress, by my definition.

A thousand-page bill of this magnitude deserves thoughtful consideration and debate. The Committee is familiar with that kind of process. After all, we only recently completed a 5 year reauthorization of the 2008 Farm Bill. Consider the fact for a moment, because it offers an important contrast from where we are today.

For roughly 2 years, this Committee held a series of field hearings across the country, multiple hearings on specific titles of the farm bill, in this very room, and enjoyed bipartisan discussion and collaboration between the Members. It took us 2 years to reauthorize a bill that would last for 5 years. But here, today, we are to have our first public hearing to consider a bill that is written to last forever, no expiration date, forever.

This is a bill that is enormous in size and consequence, that has the potential to permanently damage the standard of living of every man, woman, and child for decades to come. This legislation will span the working lifetime of every young farmer and rancher with no off-ramps, with no waivers from the negative impacts that it will have on rural economies. And yet, this Committee will hold one hearing, without a markup in sight, with the Speaker of the House insisting that this bill will be on the House floor for a vote before the 4th of July recess.

The cap-and-trade part of the bill creates a national energy tax that will do more harm to production agriculture, American industry, and our standard of living than it will do any good for the environment. From the higher energy cost to lost jobs, higher food prices to cap-and-trade promises to cap our incomes, our liveli-

hoods, our standard of living, while it trades away American jobs and opportunities.

Agriculture is a prime target because it is energy-intensive. Just this week, the Heritage Foundation released a economic study of how cap-and-trade will impact farmers. That study revealed that by 2035 the average net income for farmers will decrease by 57 percent. No wonder nearly 50 agricultural groups and food groups have expressed opposition to the bill, with more groups joining the cause every day. They understand that this legislation has the potential to destroy their livelihoods.

Proponents of cap-and-trade—our Secretary is included in that—would like to claim that agriculture will be a net winner when it comes to climate change legislation. But they have failed to provide us with any numbers to make that case.

This bill does not specifically recognize the role that agriculture can play in providing carbon offsets. It does not provide a meaningful way for farmers to participate in carbon tax credit programs.

I am not convinced that agriculture could ever benefit from a cap-and-trade system. As a lifelong rancher, a student of agricultural economics, as the Ranking Member of this Committee, I cannot support a bill that will damage an industry that consistently provides America and the world with the safest, most abundant, affordable food supply and fiber supply.

I cannot support a bill which, despite its magnitude, will be pushed through Congress without any respect to the regular legislative process. We need more hearings, more outreach, more information, more understanding about this bill. Instead, the Speaker is rushing it through Congress, I am afraid to the detriment of all of us.

Again, Mr. Chairman, thank you for holding this hearing. I know you didn't have to do it. I realize it presents many challenges, but thank you for the opportunity.

I yield back.

The CHAIRMAN. I thank the gentleman for his statement.

The Subcommittee Chairman, Mr. Holden, you are recognized.

**OPENING STATEMENT OF HON. TIM HOLDEN, A
REPRESENTATIVE IN CONGRESS FROM PENNSYLVANIA**

Mr. HOLDEN. Thank you, Mr. Chairman.

If this climate change bill becomes law, it will have a broad effect on our nation's farms, agribusinesses, and consumers. And as our economy continues to change, we will rely more and more on renewable energy, including biofuels. Linking agriculture and renewable energy is important to diversify our energy market, protecting our environment and revitalizing rural America.

However, the definition of *renewable biomass* contained in the renewable fuel standard of the Energy Independence and Security Act of 2007 is problematic because it could exclude a majority of the country's biomass. The definition would exclude much forestland because it was not clear-cut and then replanted. Hardwood forestland in my home State of Pennsylvania and much of the Northeast, as well as several other regions of the country, could be an important component in meeting the new renewable fuel standard but would be excluded by definition.

Pennsylvania also has hundreds of thousands of acres of abandoned mine lands. These lands can be restored and planted with conserving grasses such as switchgrass, which could be used for cellulosic biofuel. Being able to use the abandoned mine land for growing feedstocks would create an economic incentive to restore the desolate landscape, which now relies on inadequate Federal and state funds, but not under the new renewable fuel standard, because the statute requires land to have been previously cultivated.

If we continue with these provisions that were in H.R. 6, we will shortchange a large part of the country before we even get started. It is the statute, which was not created through regular order, that is the problem. And it needs to be changed to allow for greater flexibility.

Pennsylvania is at the forefront of promoting renewable energy and will continue to be at the helm, but only if its feedstock potential is eligible for use under the new renewable fuel standard.

There are also some other problems with the renewable fuel standard, and now is the time to fix them, when Congress is considering a bill dealing with renewable energy. I hope we can move forward to ensure agriculture's continued role in producing renewable fuels and energy.

Thanks, Mr. Chairman.

The CHAIRMAN. I thank the gentleman.

I now recognize the Ranking Member of the Subcommittee, former Chairman and Ranking Member of the Committee, Mr. Goodlatte.

**OPENING STATEMENT OF HON. BOB GOODLATTE, A
REPRESENTATIVE IN CONGRESS FROM VIRGINIA**

Mr. GOODLATTE. Thank you, Mr. Chairman. I very much appreciate your holding this hearing today.

Cap-and-trade legislation has the potential to devastate the agriculture community with higher operating costs and destroy ways of life in rural America. This Committee should be looking intensely into how this legislation will affect farmers and producers, as well as consumers of agricultural products.

It is my hope that this is only the first hearing this Committee will hold and that Members of this Committee will have a chance to mark up this far-reaching legislation. The impact that this legislation will have on our economy and our lives is extensive. We should make sure that we fully vet this bill.

The cap-and-trade proposal is really an \$846 billion national energy tax that will hit nearly every American. Moving into a cap-and-trade system will place the United States economy at a distinct competitive disadvantage because it would place significant additional costs on every American business, farmer, manufacturer, and American family.

This bill will raise electric bills across the country by hindering the development of traditional energy sources while also, ironically, limiting the development of renewable energy.

Coal provides the majority of the electric generation in our country, and this bill will effectively stop coal-fired power plants from being built in the United States at the same time that one new

coal-fired electric generating plant per week is being built in India and China. They will manufacture products previously manufactured in the United States and build on cheap electricity at the expense of the United States, at the same time that they are putting into the air the CO₂ gas emissions that this bill purports to prevent.

Nuclear, the second largest source of electricity generation and the largest source of CO₂-free energy, is effectively ignored by the bill.

Also concerning to me is the one-size-fits-all renewable electric standard. This legislation assumes that all states have the exact same amount of renewable resources and can develop them and penalize states when they cannot.

Furthermore, this legislation excludes far too many people who should be able to participate in the renewable energy market. I know I speak for Members on both sides of the aisle in this Committee when I say that the *biomass* definition in this bill is inadequate. Woody biomass is a clean, sustainable form of energy that deserves encouragement from the Federal Government, not unneeded restrictions. Given the restrictions already placed on woody biomass by the renewable fuel standard, we should not be repeating the same mistake in this bill.

We must keep in mind that agriculture is an energy-intensive industry, and this legislation will make the cost of energy even higher. It is estimated that the Waxman legislation will raise electricity rates 90 percent, after adjusting for inflation; gas prices, 74 percent; and natural gas prices, 55 percent.

There is no doubt that this legislation will also raise the cost of fertilizer, chemicals, and equipment which farmers use daily. This will cause economic harm for the American farmer. According to the Heritage Foundation, farm income is expected to drop because of this legislation by \$8 billion in 2012, \$25 billion in 2024, and over \$50 billion in 2035. These are decreases of 28 percent, 60 percent, and 94 percent, respectively. I do not know how we can expect American agriculture to survive when we cut farm income by 94 percent.

What I find even more frustrating is that the impetus for this legislation is to reduce carbon emissions, yet it does not recognize the role that agriculture and forestry play in sequestering carbon. The legislation does not specifically provide for agricultural or forestry offsets, but rather leaves eligible offsets to the discretion of the Environmental Protection Agency.

To add insult to injury, over 30 pages of this bill are devoted to developing international forestry offsets, including provisions to send American taxpayer money overseas to forest owners in developing countries while disregarding our own forest owners.

Quite frankly, leaving these offsets at the discretion of the EPA makes me very nervous. The EPA is not known to have the best working relationship with farmers and ranchers. The U.S. Department of Agriculture has a long record of working with farmers and ranchers, and they have the extensive expertise in agriculture and forestry that will make an agricultural offset program successful. This legislation needs to be amended to allow the USDA, not the EPA, to be in charge of administering agricultural offsets.

This legislation has far-reaching consequences for every person, farmer, and business in this country. We cannot ignore that America's economy is intrinsically linked to the availability and affordability of energy. During this economic slowdown, we should be adopting policies that seek to rebuild our economy and create more jobs. We need reliable and affordable energy supplies from all sources: from renewable fuels, from new technologies, from wind and solar, but also from coal, nuclear, natural gas, and oil production domestically here in the United States.

Unfortunately, cap-and-trade legislation will only further cripple our economy. Instead of government mandates and bureaucracy, we should focus on policies that support technological advances and consumer choices. The bottom line is we need policies which encourage investment in environmentally sound, cost-effective practices without stifling innovation and setting our economy further back. The simple truth behind the Waxman energy plan is that it raises taxes, kills jobs, and will lead to more government intrusion.

Mr. Chairman, I would encourage you to encourage all the Members of this Committee to be able to speak out about this legislation at this hearing. We are very pleased to have with us the primary representative of the Administration for agricultural policy, Secretary Vilsack, with us today. I think it is important for him to hear from people on both sides of the aisle the grave concerns that we have about the dramatic effect that this legislation will have upon rural America.

We need to take this legislation and completely redo it in a completely different fashion and offer a competing version that people on both sides of the aisle can join together, in a bipartisan fashion and path, to promote a sound energy policy for America and address the environmental concerns that some have raised.

Mr. Chairman, thank you very much for holding this hearing.

The CHAIRMAN. I thank the gentleman for his statement. The chair would request that other Members submit their opening statements for the record.

[The prepared statements of Representatives Baca, Boswell, Cardoza, Cassidy, Childers, Conaway, Cuellar, Ellsworth, Fortenberry, Herseth Sandlin, Johnson, Latta, Luetkemeyer, McIntyre, Minnick, Moran, Neugebauer, Smith, and Walz follow:]

PREPARED STATEMENT OF HON. JOE BACA, A REPRESENTATIVE IN CONGRESS FROM CALIFORNIA

The potential role of forests in any climate change legislation cannot be undervalued. With more than 700 million acres of forestland in the United States, this large natural resource could serve to improve our environment, secure our energy independence, and continue to enhance rural and urban communities.

To efficiently and effectively make use of all the benefits of American forests, both public and private, it is important to clearly include a broad definition of *renewable biomass* in any climate change legislation. As Chairman of the Subcommittee on Department Operations, Oversight, Nutrition, and Forestry, this definition was a large part of the testimony and discussion during our hearing on forestry policy on June 3, 2009.

During testimony and in response to questions by the Subcommittee, all seven witnesses expressed concerns about the ability of public and private forests to participate in programs aimed at reducing carbon emissions. Specifically, the current version of H.R. 2454 has a definition of *renewable biomass* on Federal lands that would hinder the ability of the U.S. Forest Service to make full use of the available feedstock. Although the U.S. Forest Service fully supports language that will protect

wilderness, roadless, primitive, wild, scenic, late successional and old growth forests, inclusion of the term "mature" in the definition, is vague and confusing. Until this word is removed or replaced with clearer language, useable biomass will remain on the forest floor, increasing the fire hazard, limiting good forest management activities, and emitting, rather than sequestering, carbon.

I remain committed to improving our nation's emissions of greenhouse gases, and believe forests, like the San Bernardino National Forest that borders my district, are one of the keys to a successful Federal program. But until the legislative language in any climate change legislation coincides with the realities of forests and forest policies, we will poorly serve our nation's people, forests, and environment.

PREPARED STATEMENT OF HON. LEONARD L. BOSWELL, A REPRESENTATIVE IN
CONGRESS FROM IOWA

Thank you Mr. Chairman for holding this important hearing. I would like to welcome and thank the witnesses testifying before the Committee today to offer their insight on the effects of climate legislation on the agriculture community. I would especially like to recognize my fellow Iowan, Secretary Vilsack. I look forward to hearing all the witnesses' testimony.

We are all aware of the challenges posed by global climate change, and of H.R. 2454, the American Clean Energy and Security Act. Our particular challenge today is to assess H.R. 2454's effect upon agriculture producers, and to identify how best the agriculture community may be utilized as partners in preserving and protecting our environment. I am concerned that in our justifiable haste to confront climate change, agriculture and rural communities will be unduly harmed.

I have several concerns that I hope will be addressed before moving this legislation to the floor. Currently, there is no mention of agricultural offsets in the bill. Without an ag offset program, America's farmers and ranchers will have no incentive to act on their ability to capture as much as 20 percent of domestic carbon dioxide emissions through soil sequestration, and no opportunity to benefit from doing so. As a result, they will have to bear the brunt of increased input costs such as fuel and fertilizer.

Another issue is what to do with early adopters. I have said this many times over the years, but bears repeating: farmers and ranchers were the first environmentalist in this country, and remain some of the strongest. Whatever an agriculture offset provision looks like, we must ensure that those early adopters are not penalized for doing the right, environmental thing, and ensure they get credit for their actions.

An additional concern is that the current legislation has no role for USDA outlined in the text. As the agency that is responsible for conservation and forestry programs, which have effectively sequestered carbon for years, it is critical that USDA be involved.

Some people might argue that not all issues that this Committee would like to address are agricultural issues, such as indirect land use. I would dispute their logic. In today's modern agricultural economy renewable fuels such as biodiesel and ethanol are very much part of that economy. It is vital to fix the indirect land use issue so we do not cripple our biofuels industry before it learns to walk. In order for advanced biofuels to come along, such as cellulosic ethanol, we must have the infrastructure in place of corn-based ethanol and current biofuels.

Infrastructure is very important and that is why I have actively pushed for the inclusion of H.R. 864, the Renewable Fuel Pipeline Act which I introduced earlier this year. This bill would help transport biofuels from the Midwest to the East or West Coasts.

A renewable fuels pipeline will also reduce greenhouse gas emissions (GHG). Pipeline transport has the lowest input energy requirements and emissions among the four inland transportation models.

Rail and barge transport are higher, and truck transport is the highest in input energy requirements and emissions.

CO₂ emissions are reduced by 30% when comparing ethanol transported by pipelines *versus* railcars and 87% when comparing pipelines to trucks.

By reducing the cost of transporting this homegrown fuel, we will be able to lower costs for both producers and consumers.

One fundamental question I have is this: will the Waxman-Markey legislation disproportionately affect midwestern states? Many states in the Midwest, such as Iowa, heavily rely on coal for energy and their electricity. While Iowa has been aggressively moving towards more alternative energy (like wind energy) we must ensure that many midwestern constituents will not have the greatest cost assessed to them.

As a farmer, I understand and appreciate the concern for preserving our rich natural resources. Agricultural producers are some of our greatest environmentalists. However, I fear that agriculture's unique opportunities to combat climate change are being overlooked, and as a consequence this indispensable community will be placed in a terrible position. We cannot afford to treat farmers and rural America as obstacles to environmental integrity. They can and must be partners in crafting a safer, cleaner, more sustainable future, and I look forward to your comments in how best to achieve that goal.

PREPARED STATEMENT OF HON. DENNIS A. CARDOZA, A REPRESENTATIVE IN
CONGRESS FROM CALIFORNIA

Thank you, Mr. Chairman, for holding this important hearing today. I appreciate your leadership on this issue and I'm very glad to see agriculture and this Committee stepping forward in this debate.

There is no debate that our Earth and our climate are changing. Temperatures across the globe are rising and in California, we are already seeing incremental and irreversible change to our environment.

Years of scientific research tells us that human activity—our own habits, behaviors, and prosperity—has caused this dramatic change in Earth's health and therefore it is our responsibility to find a cure for what ails us.

In developing a cure, however, it is imperative that we do not inadvertently kill the patient. We must craft a plan that negates our impact on our environment while still maintaining jobs, homes, neighborhoods, and our economy as a whole.

Unfortunately, in Central California we have seen what can happen when well-intentioned environmental policy is implemented without a balanced and practical approach.

To put it mildly, my district in California's Central Valley is hurting. In the Valley, global warming hasn't reduced the amount of water. Instead, severe and short-sighted environmental regulations have caused this devastation. These man-made policies have resulted in hundreds of thousands of acres of prime agriculture land being fallowed. More acres are forecasted to be left out of production because farmers cannot get the water they need to grow crops.

Unemployment in some Central California towns has reached more than 40 percent due to out-of-work farm laborers. To add insult to injury my district has the highest foreclosure and unemployment rates in the country. In Central California, we cannot take much more.

I want a climate change bill that helps our environment and preserves our Earth for my grandkids. But I don't want to sacrifice the health, the jobs, or the homes of my kids, my neighbors, and all my constituents.

This climate change bill must be based on reality and implement practical solutions. To ignore economic reality is no better than ignoring the problem.

Thank Mr. Chairman. I yield back my time.

PREPARED STATEMENT OF HON. BILL CASSIDY, A REPRESENTATIVE IN CONGRESS
FROM LOUISIANA

Thank you, Mr. Chairman.

Anyone who drives a car, heats or cools their home, or eats food will be affected by the legislation we're discussing today.

The non-partisan Congressional Budget Office says Cap & Trade is an \$846 billion tax on energy. Higher energy taxes mean higher energy prices. Higher energy prices will affect every sector of the economy and make nearly every thing we do more expensive.

From the Brookings Institution on the left to the Heritage Foundation on the right, there is agreement that this \$846 billion tax will harm the economy. The exact estimates vary, but the conclusions do not. This bill will lead to greater unemployment, a significant spike in energy prices, and greater dependence on foreign sources of energy.

Even President Obama confesses, "Under my plan electricity rates would necessarily skyrocket."

Louisiana, my home state, is an energy state, where over 320,000 people owe their livelihoods to the energy sector. Cap & Trade will have severe consequences for our economy and workforce. In fact, the Brookings Institution estimates that Cap & Trade will reduce employment in the energy sector by roughly 40 percent. That translates into substantial job losses for Louisiana.

Like the domestic energy economy, Cap & Trade will have particularly harsh consequences for farmers and rural communities.

Because agriculture is an energy-intensive industry, even modest fluctuations in energy prices produce profound ripple effects.

It is estimated that fuel, electricity, fertilizer, and chemicals account for 65 percent of a farmer's overhead costs. By imposing substantially higher energy costs on farmers, this legislation will eliminate agriculture jobs and increase prices in grocery stores.

Proponents of the bill argue it will stave off global warming and its harmful effects. However, they cannot point to any reasonable analysis suggesting this bill will accomplish their goal. Passing this bill incentivizes carbon-emitting industries to move their operations—and jobs—offshore, resulting in more, not less, greenhouse gas production in countries with more relaxed environmental regulations than our own. At best, its effect on global warming is miniscule.

On the other hand, it is an absolute certainty that energy prices will rise, our economy will shrink, and jobs will be lost if this bill passes.

PREPARED STATEMENT OF HON. TRAVIS W. CHILDERS, A REPRESENTATIVE IN
CONGRESS FROM MISSISSIPPI

First, I would like to thank Chairman Peterson for holding this important and necessary hearing. I would also like to thank Secretary Vilsack and the other witnesses for joining us today. Along with many of my colleagues, I have some concerns and frankly some fundamental objections to the current version of the energy legislation that we are looking into this afternoon. I believe that the bill, as it stands, fails to recognize the important contributions the agriculture community can and must play in energy legislation if we have any hope of curbing climate change and achieving true energy independence.

As we look for ways to advance our current energy policies we must look to our friends in agriculture for common sense solutions. America's farmers and ranchers have been at the forefront of developing innovative environmental practices for years. We must recognize these advances and ensure that they are utilized as we look to reduce our carbon emissions nationwide. At a time when feed, fertilizer, fuel, and production costs are at their highest, it is necessary for Congress to create policies that allow producers to participate in offset programs.

It is also my hope that we can understand from the witnesses here how we can make definitional changes to terms such as *biomass* to again ensure that agriculture has ample opportunity to contribute to new energy initiatives. America has continually proved itself to be a country of innovation and our farmers and producers are working hard to continue this tradition. If we truly consider what is best for our nation, we will be able to create a comprehensive energy plan that allows the agriculture community to play an integral part in addressing our current environmental situation. I look forward to hearing the testimony of all of the witnesses and I would like to thank them for taking the time to be here today.

PREPARED STATEMENT OF HON. K. MICHAEL CONAWAY, A REPRESENTATIVE IN
CONGRESS FROM TEXAS

Mr. Chairman, thank you for calling this hearing today. I appreciate the opportunity to discuss the impacts that the Waxman-Markey bill will have on the food and fiber producers in Texas and throughout our nation. I would also like to thank our three panels today for taking the time to prepare, to travel to Washington, and to appear before us today. Your input is important and will hopefully not be in vain because of political considerations are once again trumping the legislative process.

To clarify, I am encouraged by the words and efforts of my good friend, Chairman Peterson. The Chairman has consistently placed the concerns and interests of rural America above that of partisan ploys and flawed ideas. It is my hope that other Democratic Chairmen will follow Mr. Peterson's lead and stand up for working families and small businesses across their Congressional districts. It is our duty to ensure that the needs and concerns of the agricultural community and rural America are heard and addressed before this legislation moves any further.

Although I remain highly skeptical of the science underlying this debate and dispute the fundamental need for this legislation, today's hearing is not about computer modeling and variables or formulas and graphs; it is about the very real costs that this bill will impose on our families, our businesses, and ultimately, our economy.

Today, we will have an opportunity to hear from America's agricultural community about what burdens they expect this national energy tax scheme to present. Further, we will have an opportunity to discuss whether or not we feel these costs are appropriate and worthwhile responses to the assumed threat posed by global warming.

Global warming, as its name suggests is an issue that ignores national boundaries. If the science is correct, which is in no manner an agreed upon issue, then the carbon dioxide emitted in China is just as bad as carbon dioxide emitted in America. America, while the world's most industrialized nation, is no longer the largest emitter of carbon dioxide. Recently, the United States was passed by China in total tonnage emitted, and India is close at our heels. Both China and India have declared that global warming is a problem of the industrialized world, and that they will not deny their citizens the increased standard of living that cheap, abundant energy provides. With a population of over 2.5 billion people between them, these two rising economies represent the overwhelming bulk of new emissions for the foreseeable future. Reliable and affordable sources of energy represent a path out of crushing poverty for hundreds of millions of Chinese and Indians, and it is irrational to expect their leaders to surrender that tool. Yet, a plan to curb emissions that does not include them, will not be worth the paper on which it is printed. Any emissions savings that we can produce will simply be swamped by the new emissions coming from these two economies. The United States cannot unilaterally address such an issue. A global problem requires a global solution.

The Waxman-Markey bill is expected to hit agricultural producers particularly hard. According to a recent study by the Heritage Foundation, the legislation would shear \$8 billion from farm income in 2012 and \$50 billion by 2035. This is too steep a price to pay for a plan that cannot even begin to guarantee that it will be able to meet its objectives. Again, this is principally because the problem lies largely outside of the jurisdiction of the legislation at hand.

Because the Waxman-Markey bill is silent on specific agricultural provisions, or exemptions, we are left to speculate at how this bill will directly impact production agriculture. Already concerns have been voiced that the EPA may move to regulate farms and ranches for greenhouse gasses. Without an explicit exemption from an emissions cap for agriculture, it is not in my opinion a matter of IF production agriculture will be regulated but WHEN.

In Texas, our state officials from our the State Agriculture Commissioner, to the Comptroller, and up to the Governor, have expressed grave concerns and even opposition to the legislation. They have studied it and determined that it would bring more harm than benefit to our great state. Further, a growing number of Texas agriculture organizations that span the entire spectrum of production have reviewed this bill and come to the same conclusion. I plan to submit their letters for the record so that even in their absence here today, their voices and concerns may be heard. These producers and organizations, involved in the day-to-day operations of farms and ranches realize full well the pending disaster that the Waxman-Markey legislation would cast upon rural America.

These fundamental concerns of rural communities and production of agriculture have not been explored by the Energy and Commerce Committee and will remain unaddressed in today's hearing. Although I believe the opportunity to point out how this legislation will adversely impact the people of my district and to hear directly from those who understand the agricultural economy is important, *a hearing* cannot and will not make the Waxman-Markey legislation a better bill. At the conclusion of this hearing, the legislation will remain unchanged and the concerns of rural America will remain unaddressed.

Mr. Chairman, I urge you to continue your demand of the Speaker that the Agriculture Committee be allowed to exercise its jurisdiction over this legislation and that a proper full Committee markup take place.

Thank you.

PREPARED STATEMENT OF HON. HENRY CUELLAR, A REPRESENTATIVE IN CONGRESS
FROM TEXAS

Thank you Chairman Peterson and Ranking Member Lucas for holding today's hearing of the House Committee on Agriculture on climate change legislation. I am pleased we can engage in a healthy debate on the legislation at hand, and offer our expertise as it pertains to the agriculture community.

I wish to represent the concerns of my constituents concerning the bill H.R. 2454, the American Climate and Energy Security Act of 2009. I represent a district in southern Texas that is not only rich in agriculture, but blessed with a diverse en-

ergy portfolio (including fossil fuels and renewable energies). More specifically, my district is the #1 producer of natural gas production in Texas, and the #5 producer of petroleum in Texas. These resources have served to keep energy costs low in South Texas, allowing residents, small business, and producers to thrive collectively.

However, as rich as my district is in its resources, low incomes are not uncommon. In fact, the median household income in my Congressional District is \$15,000 lower than the national average. We must be sure that we do not overlook the possible costs to these low income families as a result of the final legislation that will be brought to the House floor. I ask that we keep these families in mind, especially those sustaining on a modest income as we examine this legislation and its economic impact.

I have approached this issue with an open mind, and I have done my best to learn the impact this legislation will have in its current form. I look forward to a substantive and productive debate with my colleagues on the Committee on Agriculture, as I know many of them share my concerns. That is why I am hopeful and confident that our discussions here today will help move us to a final piece of legislation I support.

Again, I thank the Chairman and the Ranking Member for holding these hearings. As a native of South Texas, I understand the unique relationship that agriculture and energy share. Advancements in energy production are crucial, but we must be careful to not over reach, and put ourselves at a competitive disadvantage. I look forward to the testimony today, and our continued work on this Committee.

PREPARED STATEMENT OF HON. BRAD ELLSWORTH, A REPRESENTATIVE IN CONGRESS
FROM INDIANA

Chairman Peterson, thank you for holding this timely and important hearing to consider the impact of climate change legislation on rural America and agricultural producers. I also want to thank our witnesses today for sharing their insights and expertise with the Committee on a complex topic.

America faces serious consequences if we continue to rely on foreign energy sources that contribute to rising global temperatures. This constitutes a real threat to our economy, our environment, and our way of life. However, if America is going to take the necessary steps to produce and consume energy in an environmentally sustainable way, we must ensure the transition to a clean energy economy is made carefully and takes into account the stresses it will put on every part of our economy.

Like many here today, I have serious concerns about the American Clean Energy and Security Act. While it is an ambitious attempt to remake our energy economy, the bill's costs would fall most heavily on the Midwest—including my constituents in south and west Indiana. In addition, the Waxman-Markey legislation does nothing to lay out how America's farmers, ranchers, and forest landowners can contribute to reducing our carbon emissions. A workable program for agriculture to participate in offsetting carbon emissions is central to this effort. There are many people in this room who have been working to do just that, but more must be done.

We must also address some of the other sections of the bill that will have a disproportionate cost to farmers and rural communities. I am particularly concerned that farm cooperative-owned businesses could be subject to emissions caps and would feel their effects more severely than other segments of capped industries. For example, a co-op-owned refinery in my district, CountryMark, provides much of the fuel Hoosier farmers need to run their operations. This supply is especially critical during planting and harvest seasons.

Provisions in the current draft do not take into account the unique circumstances of these farm co-ops and could threaten their ability to operate. I don't need to tell my colleagues here that this could trigger a domino affect, hindering farmers' ability to supply America with the food and fuel it needs every day.

I am also deeply concerned with the formula currently proposed for allocating carbon emission allowances. As it currently stands, utilities would receive half of their allowances based on their electricity sales, completely regardless of their actual carbon emissions. This will badly distort the allowance system, delivering a glut of allowances to some areas that have no need for them while leaving much of the country without needed help.

It should come as little surprise that those areas in need will include rural regions in the Midwest, including south and west Indiana. Every Hoosier electric customer, and especially rural electric coop customers, will suffer because of this. The 132,775 rural electric coop customers in my district will have only 62% of their carbon emissions allocated under the current plan, leaving a very significant 38% to be pur-

chased. In contrast, we see that some utility companies—particularly those in coastal areas with large populations—will receive well over 100% of the allocations they need. In fact, some areas will receive an average of 3,741% of what they actually need. This situation puts rural Hoosier rate payers at a massive disadvantage while delivering windfalls to those who don't need them. If this is truly going to be a national effort, the burdens for implementing these policies must be shared more evenly.

Mr. Chairman, I see many areas where improvement is needed before the American Clean Energy and Security Act can realistically deliver on its promises to revolutionize our energy use and address climate change. I hope we have the opportunity to make those improvements, because without them I fear this legislation will cripple our farmers and rural communities. Again, I thank you for holding this important hearing and look forward to working with everyone here today to deliver a workable solution to our energy and environmental challenges.

PREPARED STATEMENT OF HON. JEFF FORTENBERRY, A REPRESENTATIVE IN
CONGRESS FROM NEBRASKA

Thank you, Mr. Chairman for calling this important hearing to review pending climate change legislation.

We are witnessing today an unparalleled environmental experiment with regard to carbon dioxide and other greenhouse gases in our atmosphere. Reducing greenhouse gas emissions is critically important to our environmental health and societal well-being, and a serious discussion of how America should address this challenge is timely and necessary. I believe we need a bold, new sustainable energy vision for our country.

While I support the goal of reducing greenhouse gas emissions, I do have serious concerns about the *American Clean Energy and Security Act* (H.R. 2454) and its effectiveness in achieving meaningful emissions reductions. A review of the European Union's cap-and-trade system, implemented in 2005, is relevant to our deliberations. Thus far, the EU effort has resulted in significant complications, creating windfall profits for utilities at the expense of energy users while achieving negligible reductions in emissions.

I am also concerned that this legislation would prompt a significant shift of America's already diminished manufacturing base to countries, such as China, India, and Brazil that are not bound by similar restrictions. Our national economy, made ever more vulnerable by an over-dependence on the financial service industry, should be encouraging a revitalization of the manufacturing sector, not placing unwelcome signs at its doorstep. A new wave of transferring more manufacturing overseas would most likely achieve no net reduction for our planet in greenhouse gas emissions. In fact, it may well contribute to an increase.

Meanwhile, one of the world's largest manufacturers, China, shows little sign of self-regulation. A recent report issued by China's National Development and Reform Commission, which oversees that country's climate change policy, urges developed countries to reduce their greenhouse gas emissions by at least 40 percent below 1990 levels by 2020. At the same time, China has steadfastly refused to be bound by any hard limits on its own greenhouse gas emissions. A 2008 Chinese Academy of Sciences report states that China's greenhouse gas emissions could more than double by 2020.

My academic background is in economics. I understand the appeal of the theory behind the "cap-and-trade" approach. It may look good on paper, but I fear that this approach is unworkable in practice and would not achieve the desired outcome of protecting the environment by reducing emissions. I believe that enactment of H.R. 2454 in its current form would put the U.S. at a serious economic disadvantage and impose significant costs on families (some analysts estimate costs of \$1,500 to \$3,000 annually) with no assurance of corresponding environmental benefits. Another concern is the implication of creating a new, increasingly complex financial market in the wake of the recent collapse of Wall Street.

Our sustainable energy future must include the integration of conservation and new technologies powered by clean renewable sources, such as wind, solar, geothermal, biomass, and biofuels.

While challenges of clean energy production, such as transmission and small-scale distributed generation, must be addressed, public policies that focus on the development of clean energy efforts, as well as increased energy efficiency practices on the part of businesses and individuals, will help meet multiple objectives of energy independence, increased economic opportunities, and environmental protection. In the

transportation sector we must also look at other opportunities, such as a plug-in, hybrid, flex-fuel vehicle. The technology is here.

There is much to be said about how we can help achieve the goals of addressing climate change concerns while also protecting the well-being of rural America. I am hopeful that America can address the serious challenge of climate change in a responsible manner that is constructive to our nation's long-term energy, economic, and environmental security.

PREPARED STATEMENT OF HON. STEPHANIE HERSETH SANDLIN, A REPRESENTATIVE IN CONGRESS FROM SOUTH DAKOTA

Chairman Peterson, Ranking Member Lucas, thank you for calling this hearing today. I am grateful we now have the opportunity to call attention to ways that we can improve this legislation to take the needs of rural America, including our agriculture and forestry sectors, into account.

I am opposed to the ACES bill as it currently stands. It is incomplete and imperfect. Some of my goals for energy and climate change legislation include: protecting South Dakotans from a rise in electricity rates; recognizing the essential role coal-fired power plays in keeping electricity rates affordable for South Dakotans; ensuring agriculture and forestry play a significant role in the climate change debate; ensuring a definition of *biomass* that allows rural states like South Dakota to fully participate in the new energy economy and improve forest health.

Agriculture and forestry can play a significant role in the climate change debate. With an estimated potential to offset 10–25% of all U.S. greenhouse gas emissions from agriculture and forestry lands, it is important for America's farmers and ranchers to have a seat at the table while Congress proceeds in crafting a cap-and-trade program. The current offsets program in the ACES legislation, H.R. 2454, does not do enough to include agriculture and forestry. A robust offsets program must include USDA, whose institutional resources, technical expertise and existing infrastructure of local offices provide USDA are essential to successfully administering the agriculture and forestry offset program.

H.R. 2454, as passed by the Energy and Commerce Committee, applies a flawed definition of *biomass* both to the Renewable Fuels Standard and to the Renewable Electricity Standard contained in the bill. This restricted definition of *biomass* is a non-starter for me because it excludes far too much slash and other wood waste materials that should be put to use generating electricity. A broader definition of *renewable woody biomass*, like the one I have championed for the Renewable Fuels Standard, or the very similar one contained in the farm bill, would also strengthen the Forest Service's ability to manage hazardous fuels loads and reduce wildfire frequency and severity.

I'd like to commend our Chairman for his leadership on this issue, and will work very hard with my colleagues on both sides of the aisle, Republican and Democratic—from the western states, the northern states, and the southern states—to ensure that any bill considered on the House floor has a sufficiently broad definition of *biomass*.

PREPARED STATEMENT OF HON. TIMOTHY V. JOHNSON, A REPRESENTATIVE IN CONGRESS FROM ILLINOIS

I would like to thank Chairman Peterson and Ranking Member Lucas for holding this hearing to discuss H.R. 2454, the Waxman-Markey climate change legislation.

I have served on the Agriculture Committee since coming to Congress in 2001 and have always known this Committee to serve the best interests of American agriculture while maintaining civil bipartisanship. I trust this tradition will continue as we debate this bill.

I would like to welcome Secretary Vilsack as well as the eight other witnesses testifying today. We have representatives from American Farm Bureau, National Farmers Union, National Association of Corn Growers, National Cattlemen's Beef Association, the Fertilizer Institute and the National Rural Electric Cooperative Association, all of which have members in my district. My staff and I have reviewed your testimony and look forward to hearing more of your views this afternoon.

The agricultural community has expressed strong concern over H.R. 2454 and how it will affect the livelihoods of America's farmers. As we all know, agriculture is a high cost, energy intensive business and many are concerned that this new policy will increase energy inputs (fuel, fertilizer, *etc.*) without an opportunity for farmers to receive credit for their environmental contributions. According to a 2008 Doane Advisory Services study, corn farmers would experience a \$40–\$79 per acre increase

in production costs under this bill. Soybean farmers would experience an \$11–\$20 increase in production costs.

In my view, it is a mistake for Speaker Pelosi to force this bill through the House by the end of this month, without a full understanding of its ramifications. H.R. 2454 represents a national energy tax with preliminary estimates indicating it will cost the average household anywhere from \$98 to \$3,100 a year. With such disparate estimates, Congress should take the time to debate and clearly explain this issue to the American people before rushing into a vote.

This legislation totals nearly one-thousand pages and creates permanent authorizations that will be felt for generations to come. However, seven of the eight committees that H.R. 2454 has been referred to will not have an opportunity to conduct a mark-up. In fact, this hearing is likely our only opportunity to advocate for changes to H.R. 2454 that will reflect the positive impact certain agricultural practices have on sequestering greenhouse gas (GHG) emissions.

According to the Environmental Protection Agency (EPA), agriculture and forestry are responsible for seven percent of the total GHG emissions, but also have the potential to sequester in between 15 and 20 percent of total U.S. emissions. Through conservation practices such as no-till or reduced-tillage, farmers can effectively store carbon, yielding a positive benefit to the environment and they should be given credit for doing so.

Yet, H.R. 2454 all but ignores agriculture when it comes to a cap-and-trade system. Regardless of individual views on the underlying legislation, everybody in this room today believes that this bill needs to do more for American agriculture. We need an agriculture offset program that makes economic sense for farmers. USDA needs to play a prominent role in this program because they have the necessary resources and expertise. Finally, early actors who have been engaging in environmentally sensitive practices on their farms need to be recognized.

Farmers in the 15th Congressional District of Illinois compete in a worldwide marketplace. The legislation we are talking about today applies to U.S. producers and not their foreign competitors. If we pass a bill that raises farmers' production costs without allowing them an opportunity to trade carbon credits and recoup these costs, then we have just put them at a tremendous disadvantage. We cannot reduce the foreign competitiveness of our producers.

Mr. Chairman, Ranking Member Lucas, we may only have one shot to get this legislation right. I thank you for holding this hearing and look forward to a healthy discussion on how farmers can play a positive role in reducing carbon emissions in our country.

Congressman TIM JOHNSON.

PREPARED STATEMENT OF HON. ROBERT E. LATTA, A REPRESENTATIVE IN CONGRESS
FROM OHIO

Good afternoon, Chairman Peterson and Ranking Member Lucas:

We meet today to examine H.R. 2454, The American Clean Energy and Security Act of 2009, otherwise known as cap-and-trade. I represent Ohio's Fifth Congressional District, the largest agricultural and largest manufacturing district in Ohio. I strongly feel that cap-and-trade legislation is a transfer of wealth and an attack on the Midwest. I have been working with my Republican Colleagues on the Agriculture Committee, as well as the Rural American Solutions Group and American Energy Solutions Group to show how this legislation will really harm America. The individuals who are pushing this legislation through Congress are individuals whose districts do not rely on coal for their energy generation, and whose districts do not have manufacturing and agriculture like states such as Ohio. The ramifications of this bill will be severe job losses and a national energy tax on every American.

This legislation will kill jobs in the United States, and will hit citizens' pocket-books hard. Agriculture is the number one industry in the State of Ohio. Unfortunately, only 0.8 percent of Ohioans are actively employed agriculture. Farmers in my district are not solely farmers; they are producers who farm full time and many also have full time jobs in industries such as manufacturing. Ohio boasts over 900,000 manufacturing jobs. These are the people who will be hit the hardest if this cap-and-trade legislation is passed. This legislation strikes the agriculture and manufacturing sectors the hardest because of the massive amount of energy they consume.

My district's main crops are corn, soybeans, and wheat. All of these crops have a significant operating cost for fuel, seed, electricity, fertilizers, and chemicals, all of which will increase heavily under this cap-and-trade legislation. Operating costs amount to 71 percent for corn, 50 percent for soybeans, and 72 percent for wheat.

Farmers in my district will not be able to sustain their farms and support their families with these high costs.

According to the Heritage Foundation, farm income is expected to drop \$8 billion in 2012, \$25 billion in 2024 and over \$50 billion in 2035 if this legislation is enacted. This represents decreases of 28, 60 and 94 percent, respectively. In addition, I have farmers in my district that strongly believe in domestic energy production to reduce our costs at the pump and our dependency on foreign oil. With rising gasoline and diesel prices, the only thing this legislation will reduce is their pocketbooks, with gasoline and diesel costs projected to be at least 58 percent higher.

If H.R. 2454 is enacted, job losses are projected at 1,105,000, with peak unemployment projected at 2.5 million. This legislation will have even more devastating effects by 2035, as by that time this legislation will have reduced our gross domestic product by \$9.6 trillion. This legislation will result in nothing more than higher energy costs for consumers, particularly in areas such as mine, where coal is the primary energy source. Over 86 percent of Ohio's electricity is generated by coal. The costs incurred from this legislation on the electricity generators will be passed along to the consumers. Not only will farmers in my district, and throughout the country, be burdened with not being able to afford to operate their farms, this legislation will raise their electric rates, gasoline rates and place an even larger burden on their family. A family of four could incur costs anywhere from \$1,500 to \$4,300 per year. In these tough economic times, this is an unbearable cost on the taxpayer.

According to the Heritage Foundation's Manufacturing Vulnerability Index which calculates Congressional districts' affects of cap-and-trade legislation, the Fifth Congressional District of Ohio will be the third most affected Congressional district in the United States. This week the Brookings Institution said that cap-and-trade legislation to reduce carbon dioxide emissions would lower the nation's gross domestic product in 2050 by 2.5 percent, compared with levels it would reach if the legislation was not implemented. The Brookings Institution went on to say that about 35 percent of all crude-oil related jobs and 40 percent of coal-related jobs would be lost in 2025.

In 2006, China surpassed the United States as the world's largest carbon dioxide emitter. According to data from the Global Carbon Project, from 2000 through 2007, global total greenhouse gas emissions increased by 26 percent. During that same period, China's carbon dioxide emissions increased 98 percent, India's increased 36 percent, while the United States' carbon dioxide emissions only increased by three percent. If the United States were to completely cease using fossil fuels, the increase from the rest of the world will replace United States' emissions in less than 8 years.

We have an Administration that has stated they do not want to burden tax increases on anyone making under \$200,000 per year. However, Americans who make under this amount still use electricity and gas, they still go the service station to fill their gasoline tanks, and they purchase things that have to be manufactured, processed and transported. With each of these respective items, cap-and-trade will drive up prices.

A 2008 study by Doane Advisory Services calculated the per-acre production cost increases under a cap-and-trade scheme. With my district's main crops being corn, soybeans, and wheat, we would see an increase in production costs of each by 27 percent, 15 percent and 27 percent, respectively. These are direct prices only and would not take into account the high costs of transportation, manufacturing, and processing these crops.

The Fifth District's rural community relies on eleven different electric cooperatives to supply electricity throughout the district. Rural utility companies such as the ones in Ohio are more dependent on coal for electricity generation than utilities in urban areas. According to data from the National Rural Electric Cooperative Association, eighty percent of electricity production by a rural electric co-op is generated by coal compared to fifty percent nationally.

This legislation is a detriment to America's agriculture. The Administration states that the agricultural community will benefit significantly from this legislation, however no details have been provided and no benefits are shown for the agriculture and manufacturing sectors. Plain and simple, this is a national tax on energy and will cost Americans jobs and place an even greater burden on their family budget. We need American farmers to feed America.

It is time for Congress to take a strong look at this legislation and the devastating effects it will have on our economy, especially how hard it will affect the midwestern states that rely heavily on agriculture and manufacturing.

PREPARED STATEMENT OF HON. BLAINE LUETKEMEYER, A REPRESENTATIVE IN
CONGRESS FROM MISSOURI

Thank you, Chairman Peterson and Ranking Member Lucas for holding this hearing and giving me the opportunity to voice the concerns of my constituents about the grave consequences of this national energy tax proposal.

I have traveled Missouri's 9th Congressional District extensively, and this cap-and-tax plan is a top concern of my constituents, particularly among the more than 34,000 farm operators in my district and the 650,000 rural electric cooperative members in Missouri. Agriculture is the backbone of the economy in my state, and this proposal will have disastrous consequences for Missouri.

This bill will increase taxes, eliminate jobs or drive them offshore, and raise the energy costs of those hard-working farm families trying to make ends meet.

American agriculture prides itself on the safe, affordable, and abundant supply of food, fiber, and increasingly fuel that it produces for American consumers. This legislation will undermine that system. By unilaterally imposing new taxes and regulatory burdens on American farmers and ranchers, we are ensuring that our products will not be able to compete in the global market. We will become dependent on foreign countries for our food, just as we are dependent upon them for our oil today.

This national energy tax discriminates against rural communities. I come from Saint Elizabeth, Missouri a town of about 300 people in central Missouri. Rural residents must travel 25% further for routine errands than urban households. Rural households also spend 58% more on fuel than urban residents as a percentage of income.

In addition, the industries that will be most negatively impacted by higher energy costs such as agriculture, manufacturing, construction, transportation, mining and utilities comprise 31% of all rural employment—compared to only 19% of urban employment.

As a farmer, I know first-hand that agriculture is not only an extremely energy intensive industry, but it is also often a high volume, low profit margin industry: 65% of farmers' variable input costs are fuel, electricity, fertilizer, and chemicals. All of these inputs will go up, and that doesn't even take into effect the increased costs that farmers will have to pay for seed, equipment, machinery, and other farming supplies. As a result, this will devastate the farm economy and put significant hardships on the rural communities that depend on it.

If this disastrous bill passes, the production costs for American farmers will skyrocket and their foreign competitors will not.

It will put American agriculture at a competitive disadvantage in the global economy and strip away the livelihood of many of my constituents, all for an idea that does not have the support of sound science on its side.

And with our current economic difficulties, we should not be adding yet another burden to our family farmers and rural communities.

I urge my colleagues to oppose this dangerous national energy tax scheme that, if passed, threatens the very livelihood of America's farm families and rural communities.

PREPARED STATEMENT OF HON. MIKE MCINTYRE, A REPRESENTATIVE IN CONGRESS
FROM NORTH CAROLINA

Thank you, Chairman Peterson and Ranking Member Lucas for holding this hearing and giving Members of the Agriculture Committee a chance to weigh in on this extremely important issue of climate change legislation.

While I support efforts to reduce pollution in our atmosphere and address the issues associated with climate change, I remain concerned about the real impact to consumers. The southeastern region of the United States does not have the same renewable generation capacity as states out West blessed with ample sunlight to warm solar panels and constant wind to drive turbines. I am concerned that the costs associated with both cap-and-trade and the Renewable Electricity Standard will be merely a tax on consumers without the benefits of reduced emissions or more renewable generation. I am also concerned that our farmers and forest landowners do not have a clear role in providing carbon offsets.

Our agricultural lands across the country store a significant amount of carbon, and that must not be overlooked.

I am eager to hear from our witnesses today and other Members on the Committee. Climate change legislation will have significant impacts on rural America, and it is vitally important that we have a robust and comprehensive debate about

what those impacts could be, both positive and negative. Mr. Chairman, thank you again for your leadership on this issue, and I yield back the balance of my time.

PREPARED STATEMENT OF HON. WALT MINNICK, A REPRESENTATIVE IN CONGRESS
FROM IDAHO

Mr. Chairman. As we move through consideration of the cap-and-trade bill, I urge the consideration of a segment of industry that is critical to not only the farmer community but also to the community of consumers at large. That segment is the food processing industry. Under the bill as reported from the Energy and Commerce Committee, the food industry is treated like other industries, except that it is not in the category as eligible for allocations and offsets. So bottom line, the food industry is taxed for its direct emissions and bears increased costs for indirect emissions in the form of higher prices for energy, transportation fuels and inputs.

On this Committee we talk frequently about the need for "food security", but it seems that often times the actions we take ignore the important policy interest of keeping not only our farms and ranches viable, but also our food processing capacity strong.

Most of our energy output, primarily in heating and cooling, is used to make our food safer. The Energy and Commerce Committee is right now working on a food safety bill. It is ironic that as the Committee is demanding more from processors in terms of food safety, they pass another law penalizing the energy they use to process that food and ensure its safety.

Higher costs on food processing are felt in one of two ways or both—either lower prices to the raw material supplier, or higher prices to the consumer, and if neither of those are effective, the operations will generally cease due to unprofitability.

Mr. Chairman, if this bill moves forward, I urge strong consideration of several items because we cannot afford to violate the law of unintended consequences in this situation: (1) a comprehensive review of the implications for the food and agriculture sector; (2) special consideration for facilities that use clean natural gas as their primary fuel; and (3) a direct allocation for food manufacturing plants.

Mr. Chairman—the above only addresses the costs associated with direct emissions. Indirect costs, or those costs associated with the electricity purchased for the plants will also go up, notwithstanding the allocations given to utilities. Consideration should also be given to somehow offsetting those costs.

Thank you for your consideration of this important issue.

PREPARED STATEMENT OF HON. JERRY MORAN, A REPRESENTATIVE IN CONGRESS
FROM KANSAS

Thank you Mr. Chairman. After hearing the testimony of today's witnesses, I am convinced this legislation could be one of the most detrimental policy changes we will consider this Congress. From its inception in the House Energy and Commerce Committee less than 1 month ago, this approximately 1,000 page document has been forced upon Members of Congress with little time to consider its real consequences. One of the problems we encountered here today is that there is no solid economic analysis on how this ill-conceived legislation will really affect the economy. Preliminary evidence shows that it will increase the cost of energy and with it the cost of everything we utilize on a daily basis. In its current form, agriculture will have little, if any, ability to recover additional costs. This will not only lead to decreased profitability in agriculture, but increased food prices.

What we do know is the Congressional Budget Office (CBO) says this bill will raise government revenue by \$846 billion in the first 10 years of this legislation's life. In laymen's terms, this means a huge tax increase. It is a tax increase so large it could more than 24 times over pay for all the agriculture commodity programs contained in the 2008 Farm Bill for the entire life of the bill. In addition, according to the 2007 U.S. Agriculture Census, \$846 billion is over 15 times total U.S. agricultural sales less production expenses in 2007.

This is only the beginning. The legislation we discussed today is permanent and after the 10 year period analyzed by CBO, free carbon allowances are phased out, while auctioned carbon allowances are phased in. This means future generations will be forced to pay more than the initial 10 year budget analysis conducted by CBO discloses.

Although billed as a cap-and-trade bill, in reality H.R. 2454 is a cap-and-tax bill. It is a tax that will be forced not only on agriculture and rural America, but the entire nation. Instead of government levying a tax directly on the American public, this legislation disguises the tax as a carbon allowance auction that subsequently

requires electrical generation companies, refiners, manufacturers, and others to collect the tax imposed through increased costs.

What is worse, due to the way this legislation is written, midwestern states would bear the brunt of the economic blow because of the inequitable way carbon allowances are allocated—giving excess carbon allowances to East and West Coast power plants, while shortchanging allowances given to midwestern electric cooperatives. I have seen preliminary estimates that indicate rural electric cooperative customers in Kansas could have their utility bills increase anywhere from \$200 to \$1,000 per year. The consequences go beyond our ability to turn on the lights in rural America. Our rural communities, where we must travel greater distances for work, school, and medical care will pay disproportionately compared to our urban cousins who have shorter distances to travel and can use public transportation.

I am particularly concerned that many in agriculture believe that agriculture will somehow be made whole under this legislation. Under the Waxman-Markey bill, we know this not to be the case. The word “agriculture” is only mentioned seven times. It is not mentioned once in the section that defines offsets. Instead, H.R. 2454 directs the Administrator of the Environmental Protection Agency (EPA) to define the world of carbon offsets. This is a mistake that will lead to few benefits for agriculture and increase the ability of EPA to further intrude on our farms. We know that EPA is not farmer friendly or even farmer neutral. It has consistently made determinations that harm producers and fail the common sense test.

This includes the recent EPA finding that agriculture will sequester significantly less carbon than determined under a similar 2005 EPA study, it includes a proposed rule that takes indirect land use into consideration when determining the carbon footprint of biofuels, as well as EPA’s recent decision to regulate every farmer with a sprayer as a point source and impose a costly and unnecessary permit system. EPA cannot be trusted to handle agricultural carbon offsets. Unless agriculture offsets are expressly defined and sole authority given to the U.S. Department of Agriculture (USDA), farmers will never see benefit from this legislation.

Even if offsets are defined and USDA is given authority over them, on a macro-scale, it is difficult for me to see that agriculture will even get close to mitigating the increased cost of inputs caused by the cap-and-tax system. Some sources disclose that agriculture can sequester nearly half a ton of carbon through practices like no-till. If, as some preliminary studies suggest, carbon trades between \$15 to \$40 per ton and costs per acre for corn production increase by \$40 to \$80, the numbers just do not add up. In a best case scenario, a farmer could mitigate half the cost of this legislation. In a worst case scenario, a farmer could mitigate about ten percent of the cost of this legislation. Either way, it does not bode well for agriculture. This analysis does not even take into account the livestock sector, which will be especially disadvantaged. Unlike crop farmers, operations like cow/calf operations and feedyards have few opportunities to accumulate carbon offsets. While operations like swine and dairy farms may be able to construct methane digesters, this equipment is not cheap and can cost millions of dollars. This certainly is not something the small to medium-sized farmer can afford and it will only hasten their demise.

This Committee must act responsibly and continue to hold hearings. Further examination of this legislation is a necessity. The current pace set by the Speaker of the House must be abandoned until better objective research can be conducted. Regardless of the legislative pace, we must act to correct the irresponsible decisions included in this legislation.

The Agriculture Committee must hold a markup to allow Members to address the many flaws contained in this legislation. This includes amendments to fix the disproportionate geographical distribution of carbon allowances; amendments to define the contributions that agriculture can make by sequestering carbon; amendments to place authority for agricultural offsets squarely in the hands of USDA and not EPA; amendments to properly define *biomass*; and most importantly, amendments to prevent the inflationary effect this legislation will have on goods needed to conduct our daily lives. If this cannot be achieved, then we must do what common sense demands and defeat this bill. Congress infrequently gets things right when it has ample time to properly consider policy changes, but it has never made good decisions when rushed by arbitrary deadlines.

Much emphasis has been placed on our nation’s economic recovery since the market collapse last fall. Whether you agree or disagree with the policy decisions that have been implemented to help that recovery, this bill is almost certain to unravel any chance at economic recovery if enacted in its current form. I hope that as a result of today’s dialogue this Committee will continue to investigate the impact of this bill. Once reliable data has been collected, it should commence a markup to correct what are significant problems with this cap-and-tax legislation. Agriculture de-

mands it, rural America demands it, the American public demands it. Anything less would abdicate our responsibility as elected officials.

PREPARED STATEMENT OF HON. RANDY NEUGEBAUER, A REPRESENTATIVE IN
CONGRESS FROM TEXAS

Chairman Peterson, thank you for calling today's hearing to review pending cap-and-trade legislation.

Let me start off by saying the farmers and ranchers in my district are opposed to this legislation. The change this legislation will bring to the South Plains of Texas will be further losses of family farms. This energy tax will raise the cost of fuel and electricity in ways people have never seen before, and it will prove detrimental to rural economies.

In the last year, farmers in my district have seen their input costs skyrocket and their market prices decline. The dairy producers I represent are currently losing money on every gallon of milk they produce. Peanut farmers are coming off one of the worst years they have ever had, and many of them were unable to even get contracts for this crop year. Cotton farmers are equally stressed from the roller coaster ride they went on last summer with the markets. And now we want to pass legislation to tax the most efficient farmers in the world by pushing their input costs to even higher levels?

Why do we want to do this to our farmers while none of their competitors throughout the world are subject to a cap-and-tax system? This country has already learned what dependence on foreign energy can do to an economy. If this legislation passes, I think the chances of the United States becoming dependant on foreign sources of food and fiber will become much greater.

Mr. Chairman, I look forward to hearing from our witnesses today and getting their analysis of what this legislation will do to agriculture. I specifically look forward to hearing the Administration's perspective of the proposed legislation and finding out whether they still believe cap-and-trade will benefit farmers. Thank you again for calling this timely and important hearing so the Agriculture Committee can rightly have a voice in this debate.

PREPARED STATEMENT OF HON. ADRIAN SMITH, A REPRESENTATIVE IN CONGRESS
FROM NEBRASKA

Thank you, Mr. Chairman, for holding today's hearing on the American Clean Energy and Security Act (H.R. 2454). The Agriculture Committee deserves an honest and open debate on this measure, especially as it seeks to impact every aspect of farming operations.

This proposal is a national energy tax which will be passed onto the American people. The stakes are even higher for our agriculture industry—the very industry which drives Nebraska's economy. As we all know, agriculture is an energy-intensive industry, relying on fuel for the pick-up truck, fertilizer for the crops, generators to keep heaters on during the winter. In 2008 alone, farmers and ranchers spent \$60 billion on inputs such as fuel, electricity, fertilizer, and chemicals.

The Third District of Nebraska is one of the largest agricultural districts in the country, home to more than 30,000 farmers and ranchers. Every one of those producers will confirm that even a small increase in the operating costs would have dire results. As higher energy prices hit other areas of our economy, farmers and ranchers will pay more for seed, equipment, steel, and other supplies. As the cost of production increases, so will the price of food on the shelves in urban areas.

Some of our witnesses will propose a voluntary agriculture offset program to allow for farmers and ranchers to reduce emissions and recover a portion of their increased input costs. Over the past decade, improved agricultural practices such as no-till cropping, targeted chemical applications through global positioning satellite technology, and methane digesters have reduced emissions from the agricultural sector. Unfortunately, the bill before us today does not offer such relief for farmers. The Environmental Protection Agency has revised the 2009 projections for potential agriculture offsets effectively zeroing out any benefit from soil conservation.

As a Member of this Committee, I want more careful deliberation on the pending legislation and the opportunity for a markup session. This matter deserves a full and open legislative process.

Thank you, Chairman. I look forward to hearing the testimony of our witnesses.

PREPARED STATEMENT OF HON. TIMOTHY J. WALZ, A REPRESENTATIVE IN CONGRESS
FROM MINNESOTA

Mr. Chairman, Mr. Ranking Member, Members of the Committee, our witnesses here, thank you for this very important hearing.

First of all, I want to be very clear; climate change is real, and is a serious problem. Concentrations of carbon dioxide in the atmosphere are up 30 percent in the industrial age, causing massive changes to the climate and affecting hundreds of millions of people. Nearly all national and international scientific bodies agree that human activities are impacting climate change. In fact, 97.4 percent of all climatologists who deal specifically with the science of climate agree on a consensus that it's a concern. There is only one, not an individual voice, but only one national or international scientific agency that will not agree with that, and that's the American Association of Petroleum Geologists.

We have an obligation to our children to address this problem, to set an example for the world, to strengthen our economic security and energy independence. However, we must do it wisely, it must make sense, and it must not do more harm than good.

Mr. Chairman, I thank you for the opportunity to bring together these experts to help address the serious concerns I, and many of my fellow Committee Members, have with this legislation in its current form—particularly as it pertains to the agriculture community and rural America.

We all must do our part to reduce our carbon footprint and I know that our agriculture producers have been leaders in this area—and I am proud to say that southern Minnesota is a leader in renewable energy technology. We're the fourth leading producer in wind energy in the nation, and we're leading in biofuels. We've moved to a level now where we have entrepreneurs creating small, mobile ethanol plants of 1 million gallons that are using very little energy. This has a great potential to reduce the carbon footprint in the developing world, create jobs in southern Minnesota, and move us to the next level.

I do have concerns about certain provisions in this legislation. It is important that Congress get it right. So far, USDA has set a good example as a regulating agency. It is important to use their expertise to help shape any climate change legislation that affects our producers.

I know our agriculture community can be part of the solution and want to be part of the solution. We are all looking for common ground and this is a good starting point from which we can all move forward if the different committees work together.

It is my hope that the testimony we heard today can help us make significant progress in addressing these issues. We've got our work cut out for us, but I'm optimistic.

The CHAIRMAN. And, Mr. Secretary, again, we appreciate your being with us today and look forward to your testimony.

**STATEMENT OF THE HON. THOMAS "TOM" VILSACK,
SECRETARY, U.S. DEPARTMENT OF AGRICULTURE,
WASHINGTON, D.C.**

Secretary VILSACK. Thank you, Mr. Chairman, and to the Ranking Members and Members of the Committee. Thank you for the opportunity to discuss the American Clean Energy and Security Act and the role of agriculture and forests in mitigating the build-up of greenhouse gases in the atmosphere.

Climate change is one of the great challenges facing the United States and the world. The science is clear: The planet is already warming. This is an international problem that will require commitments and actions from all countries.

Later this year, countries will meet in Copenhagen to seek agreement on a path towards tackling climate change. Ultimately, the world must transition from an economy that generates significant pollution and waste to one based on clean energy and new technologies.

Yet America has been on the sidelines on this issue for 8 years, putting us at a significant disadvantage. We must understand that

countries that make this transition to clean energy will be in a much stronger position to prosper in a world economy. America cannot allow its economy to be left behind; America must lead.

As we prepare for Copenhagen's conference this summer, President Obama has made clear that American leadership is absolutely crucial and critical. The President has called upon Congress to pass legislation that tackles climate change, that creates millions of clean energy jobs, and enhances U.S. competitiveness; that catapults American innovators into the forefront of the green energy economy; that reduces our dependence on foreign oil; and that begins to make America truly energy-independent.

Passing legislation in the U.S. House of Representatives would send an important message that America is ready to lead. The legislation that Chairman Waxman and the Energy and Commerce Committee have written is an important first step in putting America back into the forefront in creating a new energy economy and in addressing global climate change.

In meeting the President's call for Congress to enact comprehensive legislation, the House Agriculture Committee has a crucial and critical role to play in delineating the role that agriculture and forestry can play in helping to address climate change. As part of the Congressional actions, what this Committee does is absolutely vital in passing comprehensive climate and energy legislation.

Congressional enactment will make a significant statement to other countries around the world as to the seriousness of America's commitment to tackle this global problem. And I believe it is critical that we engage the participation of farmers, ranchers, and forest landowners so that they can contribute to, and potentially profit from, efforts to reduce global warming. This issue is too important for agriculture and forestry to sit on the sidelines.

I would like to commend the Committee and the Chairman for the important role you all are playing in this debate. In particular, we appreciate your efforts to survey public views on options being considered to reduce greenhouse gas emissions. The 2,000+ pages of responses to the survey released by the Committee are an indicator of the high level of public interest in the role of agriculture and forest in climate change mitigation. There is, indeed, a wealth of ideas and experiences contained in the responses that can be drawn upon in developing policy.

Within the USDA, we are reviewing the responses you received, and we thank the Committee and those that responded for making this information available. The interest that you have tapped into with this survey is similar to the level of interest we are seeing at USDA when we talk with our stakeholders around the country.

There are obvious challenges for climate change, for agriculture, and for natural resource management. Many farmers and ranchers are concerned about the impact of climate and energy legislation on the cost of diesel fuel and other inputs, but I believe there are significant opportunities for agriculture and forestry, as well, if we seize them.

That is why, when I travel around the country, I ask farmers and ranchers to look at climate change not simply as a problem but also as an opportunity for those who make a living on the land. A viable carbon offset market, one that rewards farmers, ranchers,

and forest landowners for stewardship activities, has the potential to play a very important role in helping America address climate change, while also providing a possible new source of revenue for landowners.

The President has offered a clear vision for the future. Together with our colleagues elsewhere in the Administration, USDA is working to bring this vision into reality. We are continuing to actively review and analyze a full range of policies that implement the President's vision.

We look forward to working with this Committee and other committees, producers, forest landowners, other Federal agencies, state, local, and tribal governments, as we work together in the creation of an effective and comprehensive solution to address global climate change in an overall market-based program. Allowing agriculture and forestry an efficient mechanism to offset the emissions of regulated countries, if properly designed, will help enable lower overall costs for everyone, including those making a living off the land.

USDA will have an important role in helping farmers improve efficiency, reduce energy and fertilizer uses, as well as helping farmers become self-reliant for their energy needs. A number of emerging, renewable technologies, such as anaerobic digesters, geothermal, and wind power, can reduce farmers' reliance on fossil fuels. USDA research will need to contribute to the development of other technologies, and outreach and extension networks will be needed to help make them available to farmers, ranchers, and land managers.

The potential of our working lands to generate greenhouse gas reductions is significant. In fact, today, our lands are a net sink of greenhouse gases. Based on the latest statistics from the EPA's *Inventory of U.S. Greenhouse Gas Emissions and Sinks*, forest and agricultural lands in the U.S. take up more greenhouse gases in the form of carbon dioxide than is released from all other of our agricultural operations.

A wide range of practices exists to reduce greenhouse gas emissions, including carbon sequestration, development of renewable energy, improved energy efficiency on farms and forestlands. These opportunities take many forms. Some are relatively simple, like planting trees on marginal farm lands or shifting cultivation from conventional tillage to reduced tillage or no-till. Some will involve advanced technologies that are currently available, such as precision nutrient management, wind power, and anaerobic digesters.

To fully realize the potential for greenhouse gas mitigation from lands, we will need to go beyond what is available now and develop new farming methods and energy conservation technologies, such as advances in genomics, feed additives for feedstock, and cellulosic ethanol, among others.

In other areas where there is scientific uncertainty regarding global climate change adaptation and mitigation, priorities will need to be aligned to conduct research that can help inform decision-making about climate change adaptation and mitigation.

To capture these opportunities, farmers and landowners will need to rethink business models and develop ways to partner with industries that will be their customers for greenhouse gas reduc-

tions through a carbon offsets market or through expanding markets for renewable energy.

To be effective in reducing climate change, the actions need to be implemented on a scale large enough to matter. The availability of carbon offsets from agriculture and forestry will contribute to a comprehensive, cost-effective cap-and-trade program. But in order to make a dent in greenhouse gas emissions nationally, we need to think about increasing the rates of continuous conservation tillage and no-till as a component of overall emissions reduction strategies. We will need to consider planting trees on millions of acres of marginal crop and pastureland or elsewhere. Farmers across the country will need to adopt advanced nutrient management and manure management systems to reduce nitrous oxide and methane emissions.

Unlike other sectors where greenhouse gas policy could affect hundreds or possibly thousands of companies to be effective, greenhouse gas mitigation on the land will involve hundreds of thousands of individual farmers, ranchers, and forest landowners. The system we establish will need to recognize the scale of the changes needed, the capabilities of our farmers and landowners involved, and the infrastructure necessary and required to develop information, manage data and resources, and maintain records and registries.

In addition to bringing offsets to scale, we must also ensure that offset markets have high standards of environmental integrity to ensure that offsets result in real and measurable greenhouse gas reductions while bolstering efforts to conserve soil, water, fish, and wildlife resources.

I believe the USDA can work with a wide range of stakeholders to play an important role in working with farmers, ranchers, and forest owners in both bringing offsets to scale and ensuring that offsets have environmental integrity. This will ensure, in turn, that land-use offsets fit seamlessly within the overall market-based program. This will mean that USDA and other Federal agencies will need to work well together. I am confident we can do that.

As we think through how a greenhouse gas offset program could work in the forest and agricultural sectors, it is important to understand the specific elements that will be needed. These might include procedures to determine eligibility practices, establish metrics for qualifying real and additional greenhouse gas benefits, establish reporting requirements, providing technical assistance to landowners to familiarize them with offsets and how they might participate, ensure that the activities to reduce emissions or increase sequestration have been implemented, provide a repository for reporting and record-keeping, conducting audits and spot checks, monitoring how activities impact ecosystem functions and values, and monitor an account for potential losses of carbon that is sequestered, and award offset credits.

Within a comprehensive effort involving private landowners, regulated entities, and Federal, state, local, and tribal governments, USDA is well-positioned, I believe, to work with farmers, ranchers, and forest landowners as we work through how such a new system will function.

USDA has many tools and capabilities that we can bring to bear. We have built an extensive network and infrastructure to implement commodity and conservation programs in the farm sector. Our experience with these programs provides a platform that could be used to help bring an offsets program to scale. In particular, existing USDA programs and systems could be used to bolster greenhouse gas mitigation markets.

USDA's ability to contribute to this effort is the result of the following experiences: the administration of conservation and commodity programs that involve millions of landowners on hundreds of millions of acres around the country; our field technicians who oversee the development of conservation plans and approve contracts; we certify private-sector technical service providers that develop and implement conservation plans for farmers; and we conduct audits and spot checks to ensure the provisions of conservation contracts and agreements are adhered to while maintaining records and registry of program participants.

Let me give you a few examples of the scale of these activities that USDA provides nationwide. Under the Conservation Reserve Program, USDA manages over 750,000 contracts with landowners who take environmentally sensitive land out of production. USDA's NRCS manages a network of 1,300 registered technical service providers nationwide. To bring the offsets market to scale quickly will require significant outreach and communication with landowners. USDA is well-positioned to help efforts that can make that happen.

We can also continue to develop technical capabilities specific to greenhouse gases. Our research programs are at the forefront of reducing uncertainties in the measurement of greenhouse gas emissions and carbon sequestration on farms and forestlands.

In 2006, USDA released guidance to farm and forest landowners to allow them to estimate their greenhouse gas footprint. We are developing user-friendly tools that can help farmers and ranchers make these calculations. And the Department of Energy has adopted USDA's technical greenhouse gas methods for use in their Voluntary Greenhouse Gas Reporting Registry.

We plan to make improvements to these technical guidelines in light of new authorities provided under the 2008 Farm Bill and are planning a process that is rigorous, science-based, transparent, and comprehensive. We envision a process that can engage the public and technical experts at every step to ensure that the most recent information is included and there is high confidence in the emission productions produced through agriculture and forestry offsets. In addition, USDA will need to improve upon the job we are doing in providing landowners assistance and ensuring that conservation activities are carried out properly.

Concerns regarding equivalents between agriculture and forestry offsets and emission reductions in other sectors of the economy have led some to argue that many agriculture and forestry practices should be excluded from the offset market or their benefits should be significantly discounted.

If agriculture and forests are to play a major role in addressing climate change, the benefits that carbon offsets provide need to go beyond what would have happened anyway. Qualification and reporting systems need to be rigorous, verifiable, and transparent,

and review and auditing systems will need to be put in place. Uncertainties must be accounted for and reduced. Greenhouse gas benefits accrued through carbon sequestration will need to be monitored over time to ensure that benefits are maintained and that reversals are accounted for if they occur.

If these principles are followed, the resulting offsets should be real, additional, verifiable, and lasting.

I would like to close again by thanking the Agriculture Committee for taking up this important issue for agriculture, for rural lands, and the environment. As I stressed in the opening, America must demonstrate leadership on energy and climate legislation. Doing so will benefit our economy, while also making it possible for countries to commit to address this problem as well.

I believe that agriculture and forestry can and should play a vital role in addressing climate change and that, if done properly, there are significant opportunities for landowners to profit from doing right by the environment. And USDA is ready to make that happen.

Thank you, Mr. Chairman. I would be glad to answer questions. [The prepared statement of Secretary Vilsack follows:]

PREPARED STATEMENT OF HON. THOMAS "TOM" VILSACK, SECRETARY, U.S.
DEPARTMENT OF AGRICULTURE, WASHINGTON, D.C.

Mr. Chairman, thank you for the opportunity to discuss the American Clean Energy and Security Act and the role of agriculture and forests in mitigating the build-up of greenhouse gases in the atmosphere.

Climate change is one of the great challenges facing the United States and the world. The science is clear that the planet is already warming. This is an international problem that will require commitments and actions from all countries. Late this year, countries will meet in Copenhagen to seek agreement on a path to tackling climate change.

Ultimately, the world must transition from an economy that generates significant pollution and waste to one based on clean energy and new technologies. Yet, America has been on the sidelines on this issue for 8 years, putting us at a significant disadvantage. We must understand that the countries that make this transition to clean energy will be in a much stronger position to prosper in the world economy. America cannot allow its economy to be left behind. America must be a leader.

As we prepare for the Copenhagen conference late this year, President Obama has made clear that American leadership is absolutely critical. President Obama has called upon Congress to pass legislation that tackles climate change, that creates millions of clean energy jobs and enhances U.S. competitiveness, that catapults American innovators into the forefront of the green energy economy, that reduces our dependence on foreign oil and that begins to make America truly energy independent.

Passing legislation in the U.S. House of Representatives would send an important message that America is ready to lead. The legislation that Chairman Waxman and the Energy and Commerce Committee have written is an important first step in putting America back into the forefront in creating a new energy economy and in addressing global climate change. In meeting the President's call for Congress to enact comprehensive legislation, the House Agriculture Committee has a critical role to play in delineating the role that agriculture and forestry can play in helping address climate change. As part of Congressional actions, what this Committee does is absolutely vital in passing comprehensive climate and energy legislation. Congressional enactment will make a significant statement to other countries around the world as to the seriousness of America's commitment to tackle this global problem. And, I believe it is critical that we engage the participation of farmers, ranchers and forest landowners so that they can both contribute to and potentially profit from efforts to reduce global warming.

This issue is too important for agriculture and forestry to sit on the sidelines. I'd like to commend the Committee for the important role it is playing in this debate. In particular, we appreciate your efforts to survey public views on options being considered to reduce greenhouse gas emissions. The 2,000+ pages of responses to the

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That is why when I travel around the country, I ask farmers and ranchers to look at climate change not as simply a problem but as an opportunity for those who make a living on the land. A viable carbon offsets market—one that rewards farmers, ranchers and forest landowners for stewardship activities—has the potential to play a very important role in helping America address climate change while also providing a possible new source of revenue for landowners.

The President has offered a clear vision for the future. Together with our colleagues elsewhere in the Administration, USDA is working to bring this vision into reality. We are continuing to actively review and analyze a full range of policies that implement the President's vision. We look forward to working with this Committee and other Committees, producers, forest landowners, other Federal agencies, and state, local, and Tribal governments as we work together in the creation of an effective and comprehensive solution to address global climate change and an overall market-based program.

Allowing agriculture and forests an efficient mechanism to offset the emissions of regulated companies, if properly designed, will help enable lower overall costs for everyone including those making livings off of the land.

USDA will have an important role in helping farmers improve efficiency and reduce energy and fertilizer use as well as helping farmers become self-reliant for their energy needs. A number of emerging renewable energy technologies such as anaerobic digesters, geothermal, and wind power can reduce farmers' reliance on fossil fuels. USDA research will need to contribute to the development of these technologies and our outreach and extension networks will need to help make them available to farmers, ranchers, and land managers.

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A wide range of practices exist to reduce greenhouse gas emissions, increase carbon sequestration, develop renewable energy, and improve energy efficiency on farms and forest lands. These opportunities take many forms. Some are relatively simple, like planting trees on marginal farmlands or shifting cultivation from conventional tillage to reduced-tillage or no-till. Some will involve advanced technologies that are currently available—such as precision nutrient management, wind power, and anaerobic digesters. To fully realize the potential for greenhouse gas mitigation from lands, we will need to go beyond what is available now and develop new farming methods and energy conversion technologies—such as advances in genomics, feed additives for livestock, and cellulosic ethanol, among others. In other areas where there is scientific uncertainty regarding global climate change adaptation and mitigation, priorities will need to be aligned to conduct research that can help inform decision-making about climate change policy, adaptation, and mitigation strategies.

To capture these opportunities farmers and land owners will need to re-think business models and develop ways to partner with industries that will be their customers for greenhouse gas reductions through a carbon offsets market or through expanding markets for renewable energy.

To be effective in addressing climate change, the actions need to be implemented on a scale large enough to matter. The availability of carbon offsets from agriculture and forestry will help contribute to a comprehensive, cost-effective cap-and-trade program. In order to make a dent in greenhouse gas emissions nationally, we need to think about increasing the rates of continuous conservation tillage and no-till as

¹*Inventories of U.S. Greenhouse Gas Emissions and Sinks: 1990 * 2007*. U.S. Environmental Protection Agency, 2009. EPA 430-R-09-004. Pages ES-4-6.

a component of the overall emissions reduction strategy. We will need to consider planting trees on tens of millions of acres of marginal crop and pasture lands or elsewhere. Farmers across the country will need to adopt advanced nutrient management and manure management systems to reduce nitrous oxide and methane emissions. Unlike other sectors—where greenhouse gas policy could affect hundreds or possibly thousands of companies—to be effective, greenhouse gas mitigation on the land will involve hundreds of thousands of individual farmers, ranchers, and forest land owners. The systems we establish will need to recognize the scale of the changes needed, the capabilities of farmers and land owners involved, and the infrastructure that will be required to deliver information, manage data and resources, and maintain records and registries. In addition to bringing offsets to scale, we must also ensure that the offsets markets have high standards of environmental integrity to ensure that offsets result in real and measurable greenhouse gas reductions while bolstering efforts to conserve soil, water, and fish and wildlife resources. I believe USDA can work with a wide range of stakeholders to play an important role in working with farmers, ranchers and forest landowners in both bringing offsets to scale and ensuring that offsets have environmental integrity. This will ensure, in turn, that land-use offsets fit seamlessly within the overall market-based program. This will mean that USDA and other Federal agencies will need to work well together. I am confident that we can do that.

As we think through how a greenhouse gas offset program could work in the forest and agriculture sectors, it is important to understand the specific elements that will be needed. These might include procedures to:

- Determine eligible practices;
- Establish metrics for quantifying real and additional greenhouse gas benefits;
- Establish reporting requirements;
- Provide technical assistance to landowners to familiarize them with offsets and how they might participate;
- Ensure that the activities to reduce emissions or increase sequestration have been implemented;
- Provide a repository for reporting and record-keeping;
- Conduct audits and spot checks;
- Monitor how activities impact ecosystem functions and values;
- Monitor and account for potential losses of carbon that is sequestered; and
- Award offset credits.

Within a comprehensive effort involving private landowners, regulated entities, and Federal, state, local, and Tribal governments, USDA is well positioned to work with farmers, ranchers, and forest land owners as we work through how such a new system will function. USDA has many tools and capabilities that we can bring to bear.

USDA has built extensive networks and infrastructure to implement commodity and conservation programs in the farm sector. Our experience with these programs provides a platform that could be used to help bring an offsets program to scale. In particular, existing USDA programs and systems could be used to bolster the greenhouse gas mitigation market. USDA's ability to contribute to this effort is a result of the following experiences:

- The administration of conservation and commodity programs that involve millions of land owners on hundreds of millions of acres around the country;
- Our field technicians oversee the development of conservation plans and approve contracts;
- We certify private sector technical service providers that develop and implement conservation plans for farmers;
- USDA conducts audits and spot checks to ensure that provisions of conservation contracts and agreements are adhered to; and
- We maintain records and registries of program participants.

Let me give you a few examples of the scale of these activities that USDA provides nation-wide. Under the Conservation Reserve Program, USDA manages over 750,000 contracts with landowners who have taken environmentally sensitive land out of production. USDA's NRCS manages a network of over 1,300 registered technical service providers nationwide. To bring the offsets market to scale quickly will require significant outreach and communication with landowners. USDA is well-poised to help efforts that can make that happen.

We are also continuing to develop technical capabilities, specific to greenhouse gases. Our research programs are at the forefront of reducing uncertainties in the measurement of greenhouse gas emissions and carbon sequestration on farms and forest lands. In 2006, USDA released guidance to farm and forest landowners to allow them to estimate their greenhouse gas footprints. We are developing user-friendly tools that can help farmers and landowners make these calculations. The Department of Energy adopted USDA's technical greenhouse gas methods for use in their Voluntary Greenhouse Gas Reporting Registry.

We plan to make improvements to these technical guidelines in light of new authorities provided under the 2008 Farm Bill, and are planning a process that is rigorous, science-based, transparent, and comprehensive. We envision a process that can engage the public and the technical experts at every step to ensure that the most recent information is included and that there is high confidence in the emissions reductions produced through agricultural and forestry offsets.

In addition, USDA will need to improve upon the job we are doing in providing landowners with assistance and in ensuring that conservation activities are carried out properly.

Concerns regarding equivalence between agricultural and forestry offsets and emissions reductions in other sectors of the economy have led some to argue that many agriculture and forestry practices should be either excluded from an offset market or their benefits should be significantly discounted.

If agriculture and forests are to play a major role in addressing climate change, the benefits that carbon offsets provide need to go beyond what would have happened anyway. Quantification and reporting systems need to be rigorous, verifiable, and transparent—and review and auditing systems will need to be in place. Uncertainties must be accounted for and reduced. Greenhouse gas benefits accrued through carbon sequestration will need to be monitored over time to ensure that the benefits are maintained and that reversals are accounted for if they occur. If these principles are followed, the resulting offsets should be real, additional, verifiable, and lasting.

I would like to close by again thanking the Committee for taking up this important issue for agriculture, rural lands, and the environment. As I stressed in my opening, America must demonstrate leadership on energy and climate legislation. Doing so will benefit our economy while also making it possible for all countries to commit to address this problem. I believe that agriculture and forestry can play a vital role in addressing climate change and that, if done properly, there are significant opportunities for landowners to profit from doing right by the environment. USDA is ready to help make that happen.

The CHAIRMAN. Thank you, Mr. Secretary, for your testimony.

As you can see, we have votes. We are going to keep going through this first process, and we will recess when we are voting on the motion to recommit, probably 10 minutes into that vote. But we are going to keep going through this. Mr. Holden is coming back. You know, so to try to save the Secretary's time—

Mr. LUCAS. So, Mr. Chairman, when you go vote, we should go vote at the very least by then?

The CHAIRMAN. Right. So you can go vote, if you are down the line, but come back if you can. We are going to try to move this along.

Mr. Secretary, I think most of us, all of us on the Committee believe that USDA should run an offset program. We think that that is the way to do things. But we are having people tell us that the USDA doesn't have the expertise to run a credible offset program for ag and forestry projects and that you don't have the science capabilities.

What is your response to those that are saying that?

Secretary VILSACK. Well, Mr. Chairman, let me, first of all, say that there is always room for improvement. It is fairly clear that, over the last several years, there have been some criticisms leveled at the way in which we have managed some of our programs. We are addressing those concerns and trying to improve our process.

Having said that, I think USDA has a unique opportunity to contribute and to partner. I believe that we have the research capabilities, the economic capabilities, access to data, the technical experience, and also the significant outreach network throughout the country. With 2,250 offices in our FSA program and our approximately 850 offices in our rural development area, we have significant outreach. I think we have a relationship with farmers and ranchers that has been built over time.

So, as a result of all of that, I think we are in a position to assist in providing technical assistance to farmers to understand compliance. I think we are in a position to assist in the implementation of whatever offset program might be created, and to make sure that farmers and ranchers understand fully and completely their opportunities under it.

I think we can provide and will provide technical experience and assistance to allow farmers to look at ways in which their inputs might, in fact, be reduced. I think we can provide assistance in the application process that might be required, in the implementation of an offset program, in the auditing and reviewing of the implementation, and in the reporting.

I think we are well-positioned, and that we can provide assistance and benefits. And I would hope that, as Congress acts on this and as you all exercise your judgment about how this should be structured, that you will recognize those qualifications and those opportunities, as well.

The CHAIRMAN. Well, if the Congress gives you the authority to run this program, can you run it? You know, I understand what you are saying, but—

Secretary VILSACK. Well, I tell you, Mr. Chairman, if I had a dollar for every time during my confirmation process I had to commit to doing something consistent with the intent of Congress, we wouldn't have a deficit.

We will do what you tell us to do, and we will try to do it as best we can consistent with the intent, so long as you are clear in your intent.

The CHAIRMAN. All right.

Are you familiar with this chart here that was put out? EPA came out with this new analysis of the greenhouse gas mitigation potential a couple days ago, I guess. Have you seen this thing?

It says "FASOM." I have no idea what that means, what that stands for. But apparently they have done some new study, and they have significantly cut back what they think can be done in agriculture with these offsets. They have almost no benefit that we can give in soil sequestration, and it is a mystery to me how they came up with this.

Have you or anybody down there studied this, and do you agree with this?

Secretary VILSACK. Mr. Chairman, our staffs have begun the process, and I want to emphasize *begun* the process, of taking a close look and analysis of the recent EPA analysis.

While I don't want to speak for EPA, I believe that they would, at least, have acknowledged that perhaps they were trying to respond to deadlines and timelines. We think we can add additional

information to the analysis that may very well change some of these numbers and the calculations.

It is part of what I think is important in the partnership I have talked about. We do have technical expertise. We do have access to data. We do understand the potential. We have been studying this for some time, and we can add to this calculation. I think we can help and assist in providing more specific information and more accurate information as time goes on, as all of us better understand the modeling that is required.

The CHAIRMAN. Well, for your colleagues in the Administration, you should let them know that this kind of stuff is not helpful. This EPA rule that came out on the RFS2 and them bringing in this international indirect land use, which I don't think holds water at all, and then coming up with these kinds of projections that I don't agree with, this is why a lot of us on the Committee do not want the EPA near our farms, okay?

And I don't think you are going to get any kind of a bill through the Congress that, whatever the Administration wants, that is going to have that kind of a system. That is just my reading of my Members here, so, for whatever that is worth.

We have 5 minutes left. Mr. Holden isn't here. I think Mr. Holden is going to be back shortly. Do you want to start your questioning, and then ask one question and we will give you some more time when you get back? Is that okay?

Mr. LUCAS. Fair enough, Mr. Chairman, fair enough.

Mr. Secretary, you are in an enviable position. For a century-plus, you and your predecessors in your role have been viewed as not only the Administration, and whoever's Administration it might be, as the voice of rural American agriculture within a Presidential Administration. But, you are also viewed out in the countryside as our champion, the individual who understands us, who works on our behalf in the Administration, just as your predecessors have been. And that is a tough, that is a tough position, I realize, and I respect that.

You have also been quoted in recent weeks as saying that—and even today in your testimony—that agriculture will be a net winner when it comes to climate change legislation.

I have to ask, Mr. Secretary, the bill that we are discussing today, the bill that was marked up in the Energy and Commerce Committee, the bill that basically will not be marked up in any other committees, the bill that we will get to vote on most likely in a couple of weeks, this bill would dramatically raise the cost of everything farmers and ranchers buy. But, it does not specifically give agriculture, as I read the bill, the benefit for providing carbon offsets or benefit of anything.

So I guess my first question would be—and we can go from there—do you, Mr. Secretary, support the bill that we are considering today, the bill as passed out by Energy and Commerce?

Secretary VILSACK. Representative Lucas, what I support is the notion that there is obviously work yet to be done on this bill, as you have indicated earlier today in your statement. And I believe, at the end of the day, that agriculture and forestry's role in cap-and-trade will be recognized and appreciated for the opportunity and the challenges, as you have outlined them, that exist. I hon-

estly believe that, if this is established and set up properly, that we can, in the countryside, benefit from a wide variety of options created from a cap-and-trade system.

I think it is important to recognize agriculture's role, I think it is important to recognize forest's role. I think, and I have confidence, as Congress works on this, that if it is not expressly stated today, although some would suggest that it is in the bill, if it is not expressly stated today, that it will, by the end of the day, be recognized. I think it has to be recognized as important.

Mr. LUCAS. Mr. Secretary, does the Obama Administration support this bill as passed out of the Energy and Commerce Committee in its form now?

Secretary VILSACK. Representative Lucas, what the President has indicated is support for Congress taking action to establish this year a cap-and-trade system that allows us to provide leadership on this very important climate change issue and believes that—he has the confidence, as he has expressed to us, in Congress's capacity to get that job done.

We recognize it is a big job. You have outlined how big it is today. But it is an important job. It is absolutely essential that we take action. And here is why: The challenges of climate change aren't going to go away. The problems that climate change presents aren't going to go away. It is going to require a global response, and America has to be in a position to lead.

Second, the economies and the countries that, essentially create a leadership opportunity are in the best position to create a new economy that moves away from pollution, that moves away from waste towards innovation, towards green-collar jobs. That is what the President believes in, that is what he supports, and that is what we support.

Mr. LUCAS. Mr. Secretary, the bill that is before us, the one that it appears that we will get to vote on, on the floor of the United States House in the coming weeks, the one that the Speaker of the United States House has been quoted as saying will pass, appears to have all of the cost for agriculture and rural America up front. I did not see in the language any of the benefits that you have discussed that I think most of us in this Committee are in favor of.

We are, by the legislative nature of this body, compelled to vote on the bills brought before us. I fully expect, and this is speculation on my part, they either have a closed rule or a near-closed rule when the bill comes to the floor. So when my colleagues, who are right now on the floor doing their duty, return, when in 2 weeks they vote on this bill, they will not vote on the idealistic result of the bill, they will cast their votes, they will put their name on the line on this version of the bill.

I guess my question, and maybe you can't answer this, but if you were a Member of Congress representing the great State of Iowa and you had to vote "yes" or "no" in 14 days on this bill, what would you do, Mr. Secretary?

Secretary VILSACK. Well, Congressman, you are asking me a hypothetical—

Mr. LUCAS. But you are the voice of agriculture within the Administration, sir.

Secretary VILSACK. I appreciate that, and I am going to answer your question. I am just, I am happy with the job I have.

I would simply say this, and I don't know the process as well as you do, obviously, because I haven't been a Member of Congress. But, it seems to me as if the process envisions Members having the capacity to continue to work on a bill for the next 2 weeks to do what has to be done, in your view and in the Committee's view, to improve this bill, to be more specific, to clarify, to correct, whatever you believe is necessary. That is your responsibility.

And we are looking forward to working with you to do whatever is necessary to make sure that agriculture and forestry are, in fact, part of this opportunity. And I am confident that that will happen. I am confident it needs to happen. And we will be glad to provide whatever assistance and help to whatever Member of Congress on either side of the aisle to allow that to happen.

So I am not sure how else I can say it. I think agriculture and forestry need to play an important role. I think they will play an important role.

Mr. LUCAS. I respect your responses intensely. I know you are a chief executive officer of a state, you are a Cabinet officer. I truly appreciate the challenge you are in.

But sitting on this side of the dais, looking at this bill before us now, a bill that this is the first time that we as a Committee have been able to address it, this is most likely the last time as a Committee we will be able to address it, a bill that will go across the floor. If something passes in the Senate that winds up in conference, conference reports that are unamendable by Members on the floor, we put our constituents on the line in the vote that is coming. And right now this bill is something I would hope my colleagues who care about rural America and their districts cannot vote for.

Thank you, Mr. Secretary, for your observations.

And thank you, Mr. Chairman.

Mr. HOLDEN [presiding.] The chair thanks the gentleman.

Mr. Secretary, getting back to my opening statement with the definition of *renewable biomass*, I was wondering what is your and USDA's position on changing that definition. There was an attempt in the Energy and Commerce to change it to something that we would like in this Committee, and it was defeated.

And second, along those lines, if we do not change the definition, will we be able to meet our requirements for RFS if we do not do that?

Secretary VILSACK. It is our belief that you all have done a very good job working over the course of several years to craft a farm bill in an effort to try to promote the notion of bioenergy and biomass as an energy source.

We think that the definition that you all have in the farm bill is a very good definition, a comprehensive definition. And it is one that I think it would be appropriate to look to, in terms of trying to determine how best to integrate agriculture and forestry into this system. And that would be our hope.

Mr. HOLDEN. Mr. Secretary, I want to get you a copy of a study done by the Pennsylvania Department of Environmental Protection on the switchgrass capabilities in abandoned mines. That is some-

thing that I really think USDA should take a look at that, because we were hoping you were going to have a greater role in this.

Mr. Secretary, can you tell us about the meetings taking place of the President's Biofuels Working Group? Can you reassure us about the roles of USDA and DOE and the efforts on the RFS2? And, in particular, the remaining questions many of us have about many of EPA's assumptions and the way that they choose to pull together and separate economic models to try and achieve their purposes?

Secretary VILSACK. Certainly.

First of all, the working group has begun its work. The President's directive, first and foremost, directed the USDA to provide the rules and regulations, to the extent we could, within 30 days on the energy title of the farm bill. And last Friday we met that deadline.

So we are prepared to work with folks to build new refineries, to retrofit existing biorefineries, to encourage the development of alternative feedstocks, switchgrass obviously being one of them, to continue the research, to provide effective and efficient ways and a variety of ways to produce biofuels.

The President is quite committed to it. The members of the working group are committed to it and understand that that is an important step to take if we are to reach the goal of breaking our addiction to foreign oil and providing more homegrown fuel.

USDA, at a technical level, has been participating on the RFS2 rule. We participated in a public hearing earlier this week. We participated in a 2 day technical workshop hosted by EPA relative to some of the issues involving the RFS2. We have committed to working with our colleagues in the working group to develop whatever final rules may be developed and generated.

We, obviously, have encouraged and were pleased that there is going to be a peer review of the indirect land-use portion of that rule. And we await that analysis.

Mr. HOLDEN. Thank you.

Mr. Secretary, has the Department looked at the impacts of H.R. 2454 on other programs at USDA, such as the RES, energy efficiency, and carbon catcher provisions, impacts on the RUS loan portfolio, or the impact of the green building code requirement of your housing program?

Secretary VILSACK. We have not had a full and complete analysis of all of the potential impacts. We are just in the process of getting to have an understanding, a general understanding. We recognize and understand that this process has just begun. As soon as there is some indication of finality, we will make sure that we fully understand and appreciate how best to implement these provisions.

I will tell you that we are working with—in connection with the Recovery and Reinvestment Act, we are working very hard with HUD and the Energy Department to try to ensure that the weatherization money that is available is used appropriately. So that we can begin the process of making sure that homes that are constructed, remodeled, or are purchased in rural America are given the benefit of weatherization, as is the case in urban centers. Because we understand and appreciate that energy efficiency is part

of the equation—not, by all means, the only part of the equation, but part of the equation.

Mr. HOLDEN. Thank you, Mr. Secretary.

I yield back, Mr. Chairman.

The CHAIRMAN [presiding.] I thank the gentleman.

The gentleman from Virginia, Mr. Goodlatte.

Mr. GOODLATTE. Thank you, Mr. Chairman.

Mr. Secretary, welcome. I think we had the opportunity to speak on the phone after you had been nominated, and I don't know if we have ever actually met in person. But we are delighted to have you with us today, and we appreciate the effort that you are making on behalf of American agriculture.

You stated in your testimony that countries that make this transition to clean energy will be in a much stronger position to prosper in the world economy; America cannot allow its economy to be left behind.

But do you believe that our economy will really be stronger under a cap-and-trade system? Won't the burdens and the increased costs posed by this legislation put domestic industries at a severe competitive disadvantage when compared to our international peers, especially with countries like China and India?

Secretary VILSACK. I have, and I know that you do, have a profound confidence and faith in the capacity of Americans to be innovators. I believe that our success in the past, economically, has been directly tied and connected to our capacity to accept challenges and to be the innovator of first resort.

I think the transition from an economy that is based on pollution and waste to an economy that is focused on clean energy and clean technology plays to the great strength of America. I can list a number of the components of that strength, starting with our university system, starting with the private sector and its capacity to solve problems.

So I don't believe that it will put us at a competitive disadvantage. In fact, I have a strong belief that it will provide for opportunities for us to export technologies that will encourage and create jobs here in the United States. I am also of the belief that the jobs that can be created in this economy are those that will not necessarily be subject to outsourcing, as has been the case in the past.

And, finally, the extraordinary opportunities that renewable energy and biofuels present, particularly for rural communities, offers a real opportunity for us. And when you look at the data—

Mr. GOODLATTE. Would that be under the bill as it is written now by the Energy and Commerce Committee?

Secretary VILSACK. I think it is, in recognition that, as this process continues—and I get the impression, and I may be totally wrong about this, but I get the impression that this process is a continuing process. As this process continues, the role, this Committee's work, this Committee's hearing, the opportunity for dialogue and debate, the role of agriculture and forestry will be well-understood and appreciated and part of this process. And if it is, I think there is tremendous opportunity—

Mr. GOODLATTE. I hope you are right about that, Mr. Secretary, because I am very concerned that the countries that we compete with around the world, where we are already far superior in our

environmental practices—you have talked about waste and so on. We are talking about countries that have not hesitated to take advantage of the difference in environmental policies that already exist. And we are handing them a huge advantage by tying our hands behind our back.

And look at what we are doing to rural America in limiting access to other forms of energy that farmers, ranchers, and businesses that operate in rural areas need, like coal—coal is treated so poorly in this process, and yet we have more coal reserves than any place in the world—and nuclear. If you want to talk about reducing greenhouse gas emissions, nuclear power today, without any of the incentives that ought to be in a bill like this and aren't in a bill like this, already reduces greenhouse gas emissions by a factor of several times what all of the other renewable sources of energy do, and yet it is given short shrift in this legislation.

The result of that, given that those provide about 75 percent of our electricity in this country today, is going to be to drive up electricity costs in a dramatic way.

You talk about the transition to a green economy. We are all in favor of that. You talk about the creation of green jobs. But isn't a fact that nowhere in your statement or in the Waxman bill is there any description of how we get there?

We talk about things we would like to do, and we talk about our confidence in being able to do them, but nowhere is there a roadmap to show us how to do those things. And, therefore, we are taking a big risk when we enact legislation like this that cuts back on our reliance on a whole host of domestic sources of energy, and works on the promise that there will be something cost-effective to replace them.

Secretary VILSACK. With respect, I think that we make some degree and reference it, in terms of agriculture's role and the steps and processes and procedures that agriculture can adopt and that can be encouraged that might provide real opportunity.

Let me also say that this process is not static; that, indeed, what is happening, even as we sit here today, there are scientists, there are people working in laboratories, trying to figure out how we can produce more with less.

I just had a conversation with one of the CEOs at one of the major seed companies not too long ago. And he was extraordinarily confident of the capacity of his company to come up with technology that would increase yields considerably and actually reduce inputs by perhaps as much as a third. So—

Mr. GOODLATTE. Do you think the EPA should have the authority to deal with those agricultural offsets? Or do you think that should be turned over to your Department or to somebody who has a greater understanding of agriculture?

Secretary VILSACK. I am proud of what we do at the USDA. I think we have a role to play, and we have a lot of offer. We have a unique set of tools and resources that will be used in this process. The network of technical experience we have, the capacity that we have had in the past to handle the vast number of applications that may be forthcoming, the scaling up of this, when you take a look at agriculture and forestry's role—

Mr. GOODLATTE. I hope that is a "yes." Maybe we agree on that point.

Secretary VILSACK. I think it is a partnership. I think it is unrealistic to think that EPA is going to have no role in cap-and-trade, generally. I think it would be unwise for USDA not to have a role. I think we need to work to figure out how to integrate those roles to take advantage of the expertise of each agency to come up with the best possible program.

Mr. GOODLATTE. My time has expired. Just let me ask one last quick question. Has the USDA done an analysis on how this bill will affect the operating cost for American farmers and ranchers?

Secretary VILSACK. Let me just double-check. I think I know the answer to that question, but I want to double-check.

There has not been a USDA-specific analysis. We recognize that EPA did an analysis, which they are in the process of redoing. And we can't actually complete our analysis until they have completed theirs.

So the answer to the question is we have not done a full, complete analysis of the bill. And, again, our assumption and belief is that this is a work in progress and a work in process.

Mr. GOODLATTE. Thank you, Mr. Chairman. I hope we will slow down this process to give USDA and others an opportunity to do those kinds of analyses before we put the cart before the horse and pass this legislation.

The CHAIRMAN. I thank the gentleman.

I remind Members that we will be recognizing people as they appeared at the Committee. So the next person is the gentlelady from South Dakota, Ms. Herseith Sandlin.

Ms. HERSEITH SANDLIN. Thank you, Mr. Chairman.

Thank you, Mr. Secretary, for your testimony today and your leadership of the Department.

I want to associate myself with the questions and comments of Chairman Peterson and the former Chairman, Mr. Goodlatte, as it relates to the USDA's role, in better understanding what that role can be, in our opinion what it should be, and enhancing the opportunity for the Department to administer an offsets program for agriculture and forestry.

I also know that Mr. Holden posed some questions with regard to the *biomass* definition. I encouraged one of your Under Secretaries, Mr. Jensen, for the Administration to get more into the debate and to take a position with regard to expanding the *biomass* definition. It would be good for agriculture and forestry as it relates to meeting our biofuels and renewable electricity demands that we would set out in, perhaps, an RES and to meet the targets we set forward in the RFS.

And I know that you had a chance to address indirect land use. And I would hope that the Department would insist, and perhaps if it doesn't this Committee will insist, that USDA must play a role in the peer-review process that the EPA is undertaking as it relates to indirect land use calculations.

And, finally, one further comment before posing my question. On the RFS2, I know that you had indicated, I believe in response to Mr. Holden's questions, that the USDA is involved as it relates to evaluating how the RFS2 is going with the EPA.

I would caution against, and I would imagine other Members of this Committee would agree, any cap on grain-based ethanol should be avoided as we construct the RFS2. You just referenced meeting with a company as it relates to seed technology and advancements in projected yields. I have seen those same studies and calculations and think it would be very premature and not based on sound science, based on the new technologies coming on line and that are estimated in the next 5 to 10 years, to put any kind of cap of 15 billion gallons, or whatever that number may be that has been discussed, on grain-based ethanol.

My question is an issue that many of the commodity groups state in their testimony today. It is a small but very important factor in an agricultural offsets program, and that is the idea of the stackability of credits to maximize economic benefits to producers.

In South Dakota, as you know, many producers take advantage of programs like CRP, EQIP, the Wetlands Reserve Program. Carbon sequestration in CRP acres in the Upper Great Plains, including South Dakota, are among the highest in the country. We need to allow producers to see the full benefit of these carbon sequestration activities.

And so I am wondering, Mr. Secretary, how do you see an agricultural offsets program fitting in with other USDA conservation programs as passed in the farm bill? And does USDA believe stacking credits is possible, especially given the reduction in CRP acres and other conservation program changes as mandated in the 2008 Farm Bill?

Secretary VILSACK. Part of what our challenge is, is to make sure that whatever system is established is one where we are in a position to ensure that the benefits are real; they are credible; they are verifiable; they are durable; and that they are not necessarily things that would otherwise have taken place, that the qualification reporting system that is necessary is rigorous, is verifiable and transparent.

One of the benefits that I think we have is the fact that we have been operating these conservation programs. We do understand how to go through that process. We have been rightly criticized in the past for not being as vigilant on some of these criteria as we should be on the conservation programs. We are addressing those issues. So, we are in a position to be of assistance and help.

I think it is important for us to take a look at how we can continue to create as many options as possible for farm families and rural families to profit. We have some serious and interesting dynamics taking place in rural America.

We have the emergence of small producers, 108,000 new farm operations in the last 5 years. These are very, very small operations. They aren't necessarily operations that would take full advantage of the conservation programs, but they are very important to repopulating rural America.

There are very large production agriculture systems that provide 75 percent of what we consume. They obviously are users of those programs and need to be encouraged to continue to use them.

Then there are the folks in the middle, where we lost 80,000 operations in the last 5 years. And I am looking for as many ways as I possibly can, as the Secretary of Agriculture, to figure out how

we can help those folks in the middle, between \$10,000 in sales and \$500,000 in sales, in continuing their operations.

So, to the extent that we set up systems that provide income opportunities, we should always look for opportunities to maximize those opportunities.

Ms. HERSETH SANDLIN. So stackability of credits is a concept that, as you do that evaluation, may enhance the potential for economic profitability for those mid-sized operations?

Secretary VILSACK. Representative, we are looking for all of the options, all of the opportunities that may be possible and available. We want to make sure that we are able to always quantify, justify, and verify what we are reporting, because otherwise we undermine the integrity of the system, which we don't want to do.

Ms. HERSETH SANDLIN. Thank you, Mr. Chairman.

Thank you, Mr. Secretary.

The CHAIRMAN. I thank the gentlelady.

The gentleman from Oklahoma. Oh, you have already gone? Okay, that is right.

The gentleman from Kansas, Mr. Moran?

Mr. MORAN. Thank you for recognizing me.

Mr. Secretary, welcome to the Agriculture Committee. When we first met in this room back in January, I invited you to Kansas, and I would again extend that invitation. We would welcome an Iowan to come to Kansas, someplace other than the basketball court. We would be delighted to have you.

This is a serious issue for us, and I am delighted that Mr. Peterson has called this hearing. I am interested in following up on Mr. Goodlatte's question about USDA's analysis of this bill. I am interested in knowing whether USDA has completed, even in preliminary form, any assessment of the additional costs to farmers for fertilizer, for natural gas, for diesel fuel.

Do we have any estimates of what increased costs may occur so that we have something to compare, at least, the hypothetical opportunity for an offset against? What are we offsetting?

Secretary VILSACK. Well, we are offsetting—the answer to that question is we are offsetting the capacity of other parts of the economy not to meet whatever thresholds that are required under the cap-and-trade system and the capacity for them to purchase additional permission.

Mr. MORAN. Let me ask my question differently, because you answered my question correctly. My question is, what are the amounts of money that farmers are going to pay additionally under this legislation that we need to then worry about how they find income?

You have talked a lot about the opportunity for farmers to generate income from these payments. What does USDA estimate the increased cost to production of agriculture to be as a result of this legislation?

Secretary VILSACK. Well, I can't give you a specific number today, in large part because the analysis upon which we would make that determination has not been completed. The EPA is in the process of redoing their analysis based on changes that took place when the initial bill was passed by the Committee.

I think it is fair to say that there may well be additional costs associated with a farming operation, but it is very difficult to quantify how specific and how much those costs will be. The reason I am hesitant about this is because there are so many factors apart from this legislation that impact that answer.

First of all, are we talking about 1 year, are we talking about 5 years, are we talking about 10 years, are we talking about 20 years? Second, what assumptions are you going to make relative to new technologies, greater efficiency in machinery, new discoveries, crop rotations and impacts?

All of that gets taken into account. So it is extremely difficult and a challenge for anyone to, specifically indicate with a high level of confidence, a precise number.

Mr. MORAN. That is the challenge we face in trying to decide whether this is a good idea. And we have often relied upon USDA and their Chief Economist to come tell us their best analysis of what costs and benefits might be.

Secretary VILSACK. Well, one analysis is that, as this is structured and when it will be—and I believe it will be—structured properly with a role for agriculture and forestry that you all contribute to creating, what you are going to see is, if we do this right, there is real opportunity.

There is real opportunity in two respects. First, there is the opportunity to pay farmers and ranchers for certain practices that are used as offsets. And then, second, there are terrific opportunities in terms of economic development in rural communities of jobs and industries, activities that will be generated in small towns that will provide off-farm income in addition to the offsets.

So, there are multiple opportunities here if we do this right and if we are aggressive about it.

Mr. MORAN. You indicated in response to Mr. Goodlatte's question that agriculture is—that there are offsets mentioned in the bill. And, at least as I read the bill, while the word *agriculture* is only mentioned seven times in the bill, it is never mentioned in relationship to any offset corresponding benefit to agriculture.

And it seems to me that maybe one of the difficulties we have is that you come to the Committee in support of a concept. We are here ultimately to vote on a bill.

And I guess my question would be, do you endorse this bill, or do you just endorse the concept behind the bill?

Secretary VILSACK. Well, I respect the role that you will be playing in crafting and creating this bill. I think there is a Committee process for a reason and there is an amendment process for a reason. I don't know what the final bill is going to look like because I don't want to presuppose when you will or will not do, or what decisions will or will not be made by Congress.

Let me just simply say, we are prepared at USDA to advocate agriculture and forestry's role in a cap-and-trade system and an offset process. And we are prepared to partner with Federal agencies, with state agencies, and others to administer this in a way that is fair and beneficial.

Mr. MORAN. I would ask you then, in your capacity as a representative of the President, of the Administration, to visit with our leadership. Because our frustration here is, while you continue

to express the belief that we will work our way through this magic legislative process and there will be some final product, this hearing we are having today, unless Mr. Peterson has different plans, is our only opportunity not to amend, not really to debate, but simply to ask questions of witnesses.

And so, there is going to be virtually no input or no change from the Members of this Committee. And with the Speaker's announcement that the bill's markup has to be completed in all committees by June the 19th and be on the floor the week of June the 22nd, 23rd, and 24th, something like that, the bill that is in front of us is the bill we have.

So while I am appreciative of your desire to see that agriculture works its way in and that the ultimate legislative process reflects the concepts and things that you support, at least I have great concern that the bill before us will never reach the stage that you describe.

And that is our problem, not yours. But if you could help us with President Obama in his encouragement to Congressional leadership to take a step back and say this is such an important issue for the country, for our economy, for the future of agriculture, let Congress take its time to do a better job than what I think is going to be.

My time is well expired, Mr. Chairman. Thank you for the opportunity.

The CHAIRMAN. I thank the gentleman.

The gentleman from Iowa, Mr. Boswell?

Mr. BOSWELL. Well, thank you, Mr. Chairman.

Thank you, Mr. Secretary. And I appreciate your rural food providers' participation this morning. I believe you can build that partnership.

However, I have serious doubt about this partnership, and I know from your history that you are a person that is very good at putting partnerships together. But, as this bill stands today, I don't see—I can't vote for it. I don't know if anybody else on the Committee can.

And I talked to my constituency, and you know those folks out there about as well as I do, maybe better in some cases. We have to have USDA involved in this, and we have to have the confidence they will be, or I don't think we are going to have a bill.

And I know it is very important to the Administration. Some of us were over there just the other day. And I would like for our President, I would like very much for our President to go to Copenhagen with something. But this is not getting there, I don't think, maybe I am wrong, but I don't think so.

And I join with my Ranking Member from Kansas and from the Chairman, the Ranking Member of the Committee. We implore, we beg you to do whatever you can to say—repeating what you have been saying for the last little bit, that you have the staff, you have the tools, give you some time, you can do it. We think you have to do it. We feel very, very strongly. I don't know how I could emphasize it any more.

And we want to help you to do that. We want a partnership with you on this. And whatever possibilities or things you can do with the folks in the Administration, more power to you. But we have quite a lineup of people, as you know, that are very uneasy on this.

And I could go through a whole litany of things, which you have been talking about, we have to vote on. I know of a lot of people, myself included—but my part is not important; it is for the people I represent—that have been practicing good conservation measures to stop these kind of gas releases for a long time. They shouldn't be left out, because they have been good stewards.

And then we can go on with the minimum-till, no-till, and right on down the line, but when you start matching that up with what it is going to cost them to keep doing that, as we see it now, it just won't work.

And we have dairy farmers, as you well know—and you have been trying to help them; thank you—we have pork producers, as you well know, and right up and down the line, that it is really, really tight. And we can't throw something else at them, I don't think.

So I pledge to help you any way you can to try to convince people that USDA has to be the player in this. We have to be. And whatever partnership you can work out with EPA, fine. That is okay. But we have to tell our producers and our people in an agriculture state like ours, like Mr. Moran and a whole bunch of others, that we have to be at the table. We have to be. And I can't say that strong enough.

And I hope that I am not just singing to the choir, because, Mr. Chairman, we have to get this done. And I know that you know it; we have talked plenty. And I know, from talking to you, that you want to work with the Secretary. I know that. But, this Committee is going to stand together on this, and we want USDA to have hands on.

Thank you, Mr. Chairman.

The CHAIRMAN. I thank the gentleman.

We are going to try to sneak in Mr. King, and then we are going to have to recess for about 10 minutes. We apologize, Mr. Secretary, but we will do the best we can here.

Mr. King, you are recognized.

Mr. KING. Thank you, Mr. Chairman.

And, Mr. Secretary, thank you for your testimony. It is pretty rare in this Committee to have Iowans not just back-to-back but in triplicate at least.

And I know, from past history, that you have done a very good job of doing your homework. You understand the legalities, the policy and the science behind the things that you and I have worked together on, and the things we have produced good legislation from.

And so, the question that doesn't seem to get asked, and that is this: that the underlying science that drives this entire global warming initiative, is that something that you have examined? And are you comfortable with the science?

Secretary VILSACK. Representative King, it is good to visit with you, and thank you for that question.

I have. Just to give you a sense of this, Governor Pataki and I co-chaired the Council on Foreign Relations Task Force on Climate Change prior to my having this opportunity. And we issued a report based on the international implications of climate change and some recommendations concerning domestic policy that would help enhance our position internationally.

I would argue I have also seen firsthand the impact of climate change. I recently was in Colorado. And you are probably familiar with the pine bark beetle and the infestation of a lot of the timber in the Colorado area. It is absolutely heartbreaking to see that 90 percent of that timber stand of Lodgepole Pines may well be destroyed because—

Mr. KING. Mr. Secretary, not only am I familiar with that, I am familiar with that on up into Canada in very large areas that impact on our economy. And I recognize the point that you are making.

I wanted to, though, ask if you could speak to the issue of—it seems to me that the meteorologists are very uneasy about this science. We have 31,000 scientists that have signed on and said that they don't accept the science. We have a whole group of others that have shifted their positions. And yet, when I trace the dollars, almost 100 percent of the dollars that are going into the research are the dollars that support the advocacy for addressing this as a global warming issue, or now it has been changed to a climate change issue.

And are you familiar with the assumptions that have to be made in these models, such as, for example, do clouds actually warm the Earth or do they cool the Earth? And in that assumption lies the entire crux of this matter. Is that something that you have looked at from a scientific standpoint?

Secretary VILSACK. Well, I wouldn't say that I am a particular expert in the science of this, Representative, but I do know this: I do know that we run a serious risk of inaction. A failure of this country to lead, and countries from around the globe to act, could result in significant temperature increases, which could increase the intensity of storms, that could change planting locations and planting seasons, that could result in temperatures increasing and seeing an increase in human disease and animal health being compromised—

Mr. KING. And watching my clock tick—

Secretary VILSACK.—and shorelines being destroyed and mass migration. I think there is a serious risk of inaction.

Mr. KING. And I appreciate the Secretary's response to that. I recognize in your testimony you had also referenced where there is scientific uncertainty.

But I would like to shift this thing over to the cap-and-trade component of this. And you have emphasized the need to have a very solid, tight cap-and-trade program that has pole-to-pole transparency. And if this happens, I fully agree with that.

And I would just point out that we do have an experience with cap-and-trade here in the Capitol. When Speaker Pelosi first received the gavel, she decided we would be a CO₂-emissions-neutral complex here and directed that the Capitol Power Plant be shifted over from coal to natural gas burning, and still found herself \$89,000 short in carbon credits. So she went on the board and purchased those \$89,000.

I actually went and chased that down a little bit and found that some of that money went to no-till farmers in North Dakota. No particular objection there, although I am not convinced that it changed their behavior, which was the intent.

But I did go to Chillicothe, Iowa, and I am sure you are familiar with that generating plant, the coal-fired generating plant that received a grant to burn switchgrass. And as I stood there on those bales where there hadn't been any switchgrass burned for 2 years and asked for the data on what they had learned, they told me they didn't have really a conclusion that they had drawn yet.

But it looks to me like perhaps all of that \$89,000 that Speaker Pelosi spent to purchase these carbon credits essentially brought about no change in anyone's behavior. In fact, if it had gone under your audit system, we might have found out that it was a complete failure.

And I would ask if you are familiar with that plant in Chillicothe.

Secretary VILSACK. Well, I am familiar with the specific plant, Congressman King. And I am assuming you are very familiar with the Stern Report, which suggests that the cost of inaction will be very, very severe internationally.

And that is why, I think, it is important for us to work together to try to get this process to move forward and why, I think, and will continue to think and continue to state that agriculture and forestry have to play a role, because we have something to contribute.

Mr. KING. Thank you, Mr. Secretary.

The CHAIRMAN. We have 1 minute or less. So thank you, Mr. Secretary. We will be back as soon as we can.

[Recess.]

The CHAIRMAN. All right, the Committee will come back to order. Everybody get back to order. We are finding the Secretary, and we will get going here.

Welcome back, Mr. Secretary. We made that quick, huh?

We will now recognize the gentleman from Minnesota, Mr. Walz.

Mr. WALZ. Thank you, Mr. Chairman.

And thank you, Mr. Secretary, for being here.

I think that many of us, it has been very apparent, we share the deep concerns about the issues of climate change and carbon emissions, but we also are equally concerned that, as we do this legislation, we do what is right by our true stewards of the land, our agriculture producers. You have grown up and you know this as well as anyone, that our producers have done great good for the environment and they continue to do so.

What I would say is more subjective-wise than specific on this. You are listening to this Committee, you are listening to your stakeholders who are out there, whatever. In your mind, what is it going to take to truly bring about the positive changes and hold those rural areas as harmless as possible, especially our ag producers, biofuels and those type of things? What do we need to make sure happens to ensure that, to ensure the vitality of our rural areas?

Secretary VILSACK. Representative, I am going to limit my response as it relates to climate change, because there are an awful lot of things we need to do that haven't been done, or need to be done differently to be totally responsive.

But, as it relates to climate change, it is a recognition that agriculture and forestry are a very small percentage of the problem, if

you define the problem as the emission of greenhouse gases of all kinds, and represent, at least by some studies, as much as 20 to 25 percent of the potential solution. So you would want to make sure that that is recognized in whatever policy you advance.

And what is significant is that USDA is prepared to work with our farmers and ranchers in maximizing those opportunities, because we understand what they do and why they do it and how they do it, and we are on the ground.

And so, it seems to me that a recognition of the important role that agriculture plays and forestry plays, and a recognition that USDA can partner with Federal agencies, state agencies, local agencies, to make it work as well as possible.

Mr. WALZ. Well, I very appreciate hearing that, because I think that is what many of us want. I hope your voice is resonating with folks on that, because Mr. Goodlatte brought up a point that all of us know. Out in our districts, USDA is highly respected, and I wouldn't say the opposite is true of EPA, but the ability to work with them is more difficult.

So, there is a sense of seeing us as the solution, seeing your agency can be part of this solution, instead of seeing us as another place possibly where things can fall down on us. And that is—

Secretary VILSACK. Our goal is to work with folks.

Mr. WALZ. I appreciate that.

I yield back, Mr. Chairman.

The CHAIRMAN. I thank the gentleman.

Let's see here, where are we? The gentleman from Texas, Mr. Conaway?

Mr. CONAWAY. Thank you, Mr. Chairman.

Thank you, Mr. Secretary, for being here.

Prefacing my question, Galileo was the preeminent scientist of his era, probably the only one you and I know whose name it was. The clear science of his time said that the Earth was the center of the universe. The Roman Catholic Church believed it, and most of all the other scientists did. Galileo dared to say that the sun was the center of the universe and, for that heresy, spent the last years of his life in house arrest because the Roman Catholic Church disagreed with him. You and I both know, of course, that Washington, D.C., is the center of the universe, but that is a different conversation.

Clear science—help me understand how you make that statement to us. I have a book here that has a list of almost 32,000 American scientists who disagree vehemently with that particular position. So help me understand your statement to us that the science is clear.

Secretary VILSACK. I think it is fair to say that 80 percent of the scientists who—

Mr. CONAWAY. Do you have a basis for that percentage?

Secretary VILSACK. I can get you that basis.

Mr. CONAWAY. Okay. I am a CPA by background, and when people start using percentages—

Secretary VILSACK. I would be happy to provide that to you. I mean, there are a number of reports that have suggested it.

I think there are some objective signs, as I indicated with Congressman King when we had a conversation about what is taking

place in Colorado. I mean, you have trees being destroyed in large part because we can't get rid of this beetle, and we can't get rid of the beetle because it doesn't get cold enough, like it used to, to kill it off.

So, I mean, there are some indications that—

Mr. CONAWAY. All right. The beetle aside, can you help me with your understanding of the 21 climate change models that the Intergovernmental Panel on Climate Change uses as their prediction, and the first 9 years of the Earth's actual experience with those models?

Secretary VILSACK. Well, if memory serves me correct, the significant percentage of those models suggest the possibility of a temperature increase of somewhere between 3° and 7°.

Mr. CONAWAY. Yes. And Earth's actual experience over the last 9 years?

Secretary VILSACK. Well, I know that the last 100 years is the among the warmest we have experienced.

Mr. CONAWAY. Okay. The last 9 years—and I have only got a limited amount of time, so if you are not going to answer my question, I will answer it for you.

Over the last 9 years, that actual Earth's temperature—

Secretary VILSACK. Oh, I am sorry. I thought you said the last century.

Mr. CONAWAY. Yes, the last 9 years—is actually below the most conservative model and falling away from that. So I would disagree with your statement to us that the science is clear.

As I mentioned, I am a CPA by background. I know that you had extensive experience, as Governor, balancing budgets. You make another statement to us in your testimony that allowing agriculture and forests an efficient mechanism to offset the emissions of regulated companies, if properly designed, will help enable lower overall costs for everyone.

How do you add \$600 billion to \$800 billion in new costs to generating electricity and using energy to the system and look us in the eye and tell us that we are going to have lower costs for everyone?

Secretary VILSACK. Well, the nature of the statement is that, by including agriculture and forestry in a significant way, you essentially provide opportunities for offsets, which in turn make it easier for those who are being regulated to comply with the law and potentially—

Mr. CONAWAY. But lower costs for everyone?

Secretary VILSACK.—potentially less expensive for them than otherwise would occur if you did not include agriculture and forestry in the offset program.

Mr. CONAWAY. Okay. You also mentioned earlier in your testimony that your analysis of the existing bill is incomplete. As decision-makers, wouldn't you advise us to wait until you and your team have some clear understanding of what the costs and offsets and benefits, *et cetera*, are going to be, or should we rush to judgment on this and ignore whatever wisdom your team can provide to the decision-makers on what the bill would do? Wouldn't it be better to slow down just a mite?

Secretary VILSACK. As you know, EPA is in the process of reworking its analysis of the energy costs. We will take that information and then do an evaluation of a best estimate that we have and that we can make.

Mr. CONAWAY. But would you advise us to wait? Is your information irrelevant to the decision?

Secretary VILSACK. It is not irrelevant, Representative, but here is my concern: I think you can give ranges, I think you can give an outline of the direction, but I am not sure that anybody can be as precise—

Mr. CONAWAY. I am not asking for a precise number but just some broad category guess—

Secretary VILSACK. Well, I think the broad—

Mr. CONAWAY. Yes, let me finish this off.

Your partnership with the EPA, all things climate change, will you be the limited partner in that deal, co-agenda partner? Will you work for—I mean, do you have as many lawyers as the new EPA will have to go toe to toe with them if you disagree with something that they put out?

Secretary VILSACK. Well, we have a very large General Counsel's Office, and I am a lawyer myself, so I think we will hold our own.

I think the point of this is, it is not a contest, it is not a competition. I think this is serious business, and it requires us to work cooperatively. I think it requires us to recognize the strengths that each of us bring to this overall conversation. I think the USDA has many, many strengths, many particular strengths and unique strengths—

Mr. CONAWAY. Okay. And in those strengths, do you see yourself as an advocate for ag and you would oppose the EPA if you believe that they were going down the wrong track? Or does the EPA get the tiebreaker?

Secretary VILSACK. Well, first and foremost, it depends obviously on how you all structure this. But I would say that the opportunity for cooperation involves an understanding of each position. I think the best position ought to be the position that ultimately is agreed upon. And I would do—

Mr. CONAWAY. All right. Thank you, sir.

Secretary VILSACK. If I can finish?

Mr. CONAWAY. Sure.

Secretary VILSACK. I will do my best to present as strong a case—if I feel strongly about something, I can guarantee you, you would know it, the EPA Administrator would know it, and rural America would know it.

Mr. CONAWAY. Well, and not to be a contrarian, and I am out of time, but we have asked you some pretty point-blank questions, and you don't seem to be having any strong opinions on them that you shared with us this afternoon.

Secretary VILSACK. Well—

Mr. CONAWAY. So, anyway, thank you for your—I appreciate you being here. And I hope I wasn't rude, but I only get 5 minutes—or 6 minutes and 23 seconds.

And I yield back. Thank you, Mr. Chairman.

The CHAIRMAN. I thank the gentleman.

The gentleman from Indiana, Mr. Ellsworth?

Mr. ELLSWORTH. Thank you, Mr. Chairman.

Thank you, Mr. Secretary for being here. Good to see you again.

Secretary VILSACK. Nice to see you.

Mr. ELLSWORTH. My particular question today is about what you are seeing in the proposed legislation as it relates to farmer-owned cooperatives. I have a farmer-owned cooperative refinery in my district, a wonderful employer. And I would like to leave you with this summary, with you and your staff, before we leave today, if I could.

But while agriculture activities are excluded from the current proposed legislation, I would like to know if you feel there has been adequate examination so far of the full effects of the proposed legislation on farm activities in rural communities. And if not, what do you think has been overlooked?

And if you are familiar with, like I said, the farmer-owned cooperatives as it relates to refineries, what is your opinion on that and where we go from there?

Secretary VILSACK. Well, I appreciate that the REC refineries are obviously concerned and have expressed those concerns.

You know, I had the staff actually take a look at, back in the 1930s, what the reaction was when we first began to discuss rural electrification. And there were a lot of skeptics at that point in time, in terms of whether or not it would be a good thing for rural America. The co-ops have obviously answered that question in a very affirmative way.

What I have been most intrigued by is the reaction of co-ops to embracing renewable forms of energy, at least in my state. I have seen a real desire and interest in embracing renewable energy.

And my sense and belief is that we need to do everything we possibly can to allow them to continue to provide the very important and vital service to rural communities, recognizing that their challenges are much different than the challenges of utility companies in urban centers because of the concentration of citizens served, and do everything we possibly can to give them as many options to continue promotion of renewable energy. Not only is it good for the environment, it is also good for the kinds of jobs that it is creating, at least in my state, with windmills and manufacturing coming back in part.

I have learned that there are 8,800 parts to a windmill, and so somebody has to make those parts. They can be made, and ought to be made here, in the United States.

Mr. ELLSWORTH. Let me take you to, besides the rural electric, in particular, refineries. We can't run the tractors and the combines on wind yet. It would be a good day when we can. But the small—and I am talking about the ultra-small refineries that these farmers rely on, that they can keep those gas prices steady, the fuel prices, that they rely on with these rural refineries. And what consideration might be taken in this legislation for them?

Secretary VILSACK. Well, you obviously have to take a look at the way in which—depending upon whether a decision is made to auction off credits or to allocate them, you have to look at the way in which the auctions or the allocation will work to make sure that it is a fair and balanced approach.

I would say that, again, I guess I am optimistic about the future of this country and the capacity to innovate. I am going to be anx-

ious to see where we are 20 years from now in terms of the machinery that is used on the farm, what changes have been made.

You know, I don't want to take time today, but I had an interesting experience in India relative to tractors that are made there and tractors that are made here. And it is pretty remarkable, the difference in technology, and we are just on the cusp of more innovation.

Mr. ELLSWORTH. I share those feelings and that optimism. And I wouldn't go away—and I will yield back in just a second—but also the farmers and the ranchers in my community really want to see this kept under USDA and not EPA. That is just the message—when they heard you were going to be here today, they wanted me to tell you that.

So thank you, Mr. Secretary.

Thank you, Mr. Chairman. I yield back.

The CHAIRMAN. I thank the gentleman.

The gentleman from Nebraska, Mr. Fortenberry?

Mr. FORTENBERRY. Thank you, Mr. Chairman.

And thank you, Mr. Secretary, for your testimony today. I appreciate your willingness to be here.

And I agree that agriculture should play a key role in leading us to a renewable and sustainable energy future in our country. Clearly, we need a bold, new energy vision for America.

I also believe that reducing greenhouse gas emissions is critically important to our environmental health as well as societal well-being. And a serious discussion of how America should address this challenge is appropriate, timely, and necessary.

Our sustainable energy future must clearly include the integration of conservation and new technologies powered by clean, renewable sources such as wind and solar, biomass, biofuels. Chapter by chapter, I think we can build this future. While I would support the goal of reducing greenhouse gas emissions, I do have serious concerns about this approach and its effectiveness in potentially achieving meaningful emissions reductions.

I cite the European Union's experiment with the cap-and-trade system implemented in 2005. Thus far, the EU effort has resulted in significant complications, creating windfall profits for utilities at the expense of energy users, while achieving negligible results in emissions reductions.

I am also concerned that the legislation would prompt, as has been addressed earlier, a shift of America's manufacturing and agricultural production to other countries, such as China and India and Brazil, that would not be bound by similar restrictions.

One of our colleagues who used to serve here aptly pointed out that a significant portion of the mercury pollution in the Chesapeake Bay actually comes from China.

Simply by shifting this production overseas, it would likely result in no net reduction in greenhouse gas emissions, and we may actually contribute to an increase inadvertently.

As we all agree and know, through the hard work of many public policy officials before us, America's farmers and ranchers are the most productive in the world. However, as we will hear from a number of witnesses today, this proposal may seriously tie agriculture's hands. At the same time, many of our competitors, such

as soybean growers in Brazil and cattle producers in Argentina, will not have to be bound by these restrictions that we will, potentially, place in our system.

As a side note, by the way, Mr. Secretary, Nebraska has created one of the highest numbers of new green jobs without this particular mechanism.

So, two questions for you. First, will you oppose a cow tax or similar fee based upon livestock emissions? And second, do you have—let's go back to that concern about shifting American agricultural production overseas because we would be placed at an economic disadvantage.

Secretary VILSACK. I am sorry. I didn't hear the last part of your question.

Mr. FORTENBERRY. Would this have a significant impact on American agricultural production and give incentive for it to shift overseas?

Secretary VILSACK. Well, obviously, I am not supportive of the cow tax, and I don't really think, at the end of the day, we will have such a thing.

Mr. FORTENBERRY. Are you going to move on from there?

Secretary VILSACK. Go ahead.

Mr. FORTENBERRY. I just want to clarify then what you—let's unpack your statement where you said, "Farmers across the country will need to adapt to advanced nutrient management and manure management systems to reduce nitrous oxide and methane emissions."

Secretary VILSACK. Well, I think that the reason for that will be an economic one. I think that they will be encouraged to be as efficient and as effective as possible with their farming practices.

Mr. FORTENBERRY. Of course, we do that through regulation—

Secretary VILSACK. Just in the same way that we are currently using technology to reduce the amount of pesticides and chemicals, seed technology to reduce the overall costs, we will continue to see that kind of adoption and acceptance of new practices.

Mr. FORTENBERRY. But the enforcement mechanism?

Secretary VILSACK. I am really not quite sure—

Mr. FORTENBERRY. Well, would the farmer, in effect, have to buy an offset in order to continue to allow his herd—

Secretary VILSACK. I don't think that is what is being suggested or proposed. At least, that is not what my understanding of it is. My understanding is that we are looking at the impact, sort of, indirectly on input costs because of other aspects of the economy being subject to emission standards or emission requirements, and then the economic opportunity with agriculture and forestry involved and engaged on the opportunity side.

And if we structure this properly, it is my belief that we actually—at the end of the day, if we structure this properly, we can bring some economic activity and viability back to rural America that we desperately want, and that I think we share in, our desire to see happen.

Mr. FORTENBERRY. I agree that there is tremendous opportunities here for agriculture, and we are engaging in a number of those now. But, clearly, there may be impacts. I am sorry, Mr. Chairman, we can't get to the second part of the question about how we might

inadvertently give incentive for production overseas due to increased input costs.

Secretary VILSACK. I am not willing to concede that we are going to cede the competitiveness of our agriculture as a result of this. I think what you are going to continue to see is extraordinary innovation in this country. I am a strong believer in the capacity of this country to always be at the cutting edge of innovation.

And certainly in agriculture, no one can match us in terms of innovation. The seed technology that has been developed and will continue to be developed is nothing short of remarkable and extraordinary. And I would imagine that, if I polled this entire Committee, we would all agree on this: that we are a leader in innovation, ag innovation, and will continue to be. I think we have to be. And I am just confident we will be.

Mr. FORTENBERRY. We will work with you on that goal. Thank you, Mr. Secretary.

The CHAIRMAN. I thank the gentleman.

Let's see, the gentlelady from Illinois, Mrs. Halvorson?

Mrs. HALVORSON. Thank you, Mr. Chairman.

Mr. Secretary, great to have you here. Thank you so much. I just have a couple of questions.

I would like to know if you can comment on any discussions you have had with the Administration with regards to, possibly, the change in policy that the offset program could be under the purview of the USDA *versus* the EPA?

Secretary VILSACK. I think what I have been able to do in meetings with my fellow Cabinet members is to continue to stress the unique characteristics and tools that USDA has.

And I think that there is an understanding within the Administration of those unique characteristics and tools: everything from the fact that we have boots on the ground, a tremendous network, a connection with our farm and ranch families in this country, and the technical expertise both in our office here in Washington, D.C., and throughout the United States to assist farmers in taking full advantage of this opportunity.

So, there is a recognition of that.

Mrs. HALVORSON. And also the amount of offices and—

Secretary VILSACK. That is what I refer to when I say boots on the ground, the 2,250 rural offices in our Farm Service programs and over 850 offices in our Rural Development—

Mrs. HALVORSON. And do you know how many EPA has?

Secretary VILSACK. You know, I don't know that. I do know that—I am fairly certain that we have more direct, on-the-ground communications and contacts. I am fairly certain.

Mrs. HALVORSON. Well, and the only reason I bring that up is because, if you say we have more, obviously they should be able to counter that by saying, "Oh, no, we have X."

Secretary VILSACK. You know, to be candid and honest, we are not in a competition on this. I mean, I am looking—and I believe it is appropriate, and the President has been very clear about this. He wants to change the way in which we do business in Washington. This is not about stovepiping. This is not about protecting turf. This is about figuring out how you can cooperate to move the country, all parts of the country, forward.

And so, my view of this is, I want to work with EPA, I want to work with the Interior Department, I want to work with Commerce, I want to work with anybody that is involved in this, and I want to work at the state and local level as best we can to make this work for farmers and ranchers. Because if it does, we can bring prosperity back to rural communities, we can repopulate the rural communities. And there are many, many benefits, the greatest of which is the important values system that that part of the country represents that can be preserved.

So we are committed to working with folks. And with all due respect to this Committee, this is not—I understand that there is a concern about EPA. But from my vantage point, let's figure out how we work together. Whoever has the expertise, whoever has the knowledge, whoever is in the best position to carry the policy forward, we would have confidence in all of you to make that best judgment.

Mrs. HALVORSON. Okay. Well, then, I think that I can speak for many of the people on this Committee that we have confidence in the fact that the USDA should be the ones that do it, not the EPA, because of the infrastructure, because of what we believe in. And that is just where we stand and how we feel about it.

So, I appreciate that you say that you are willing to work with everybody. I think that we are also. But we still believe, from our standpoint, that the USDA is in a better position to deal with the offsets.

Secretary VILSACK. I agree we have unique opportunities and unique tools which are important to this.

Mrs. HALVORSON. Great. Thank you.

I yield back.

The CHAIRMAN. I thank the gentlelady for her comments.

The gentleman from Nebraska, Mr. Smith?

Mr. SMITH. Thank you, Mr. Chairman.

Thank you, Mr. Secretary, for your service.

You spoke of planting trees on tens of millions of acres of marginal farmland. Could you elaborate and either point to geographically where that might be, or describe what that might look like?

Secretary VILSACK. Well, this is an example of what may potentially occur if there is an opportunity for farmers and ranchers just as there is with the conservation programs that we have today. If we can offer a greater return on marginal land for farmers and ranchers, then they are going to make the right set of decisions for their operation, for their families, for their bottom line. If the incentives are there, if the opportunities are there, they are going to seize those opportunities.

And so the question is, as we establish and set this process up and recognize the role that agriculture and forestry play, there may very well be places—and I am not going to be able to tell you with precision as to precisely what acreage and what state—but there may be places where there may be highly erodible land or land that is not particularly productive. As farmers take a look at the options as this evolves, they may say, “If we plant trees, we actually might be better off financially using this as an offset, rather than simply using some other program or planting a crop, and not getting a particularly significant yield from that land.”

So, I mean, it is a set of decisions that farmers are making today with reference to conservation programs, and this is just an extension of that decision-making process.

Mr. SMITH. So would that be a one-time offset for planting trees?

Secretary VILSACK. Well, what you are going to see is a process by which those who are required to have offsets will be in the process of purchasing those offsets. And I can't imagine that what we have is a process or a situation where you don't have some degree of predictability when you are talking about making a decision that is a longstanding position, as opposed to a different cover crop on a particular piece of ground or a different conservation practice that might be changed from year to year.

So, it is a matter of how this is all set up and how we best incent the greatest opportunity for offsets.

Mr. SMITH. Would you see an offset, a one-time offset for planting trees being more lucrative than other crops in perpetuity being harvested every year or every other year?

Secretary VILSACK. I think it depends on the circumstances, it depends on the farming operation, it depends on a lot of variables. I don't know that you can specify one or the other.

I think what you want is a wide range of options so that farmers can make choices, just in the same way that you all gave farmers a multitude of options with the farm bill. This is just a continuation of that philosophy. Give them as many options, as many choices, so that they can make the best decision for their individual operation and, in turn, make the best decision for the overall benefit of the country. That is what we ought to be about.

Mr. SMITH. Okay. Switching gears just a bit here, what about the ag producers who are unable to take part in the credit program, for example, those who have been engaged in conservation practices for quite some time who probably would not receive that increased margin of green practices?

Secretary VILSACK. Well, this is a policy decision that, obviously, has to be discussed and you all are going to have to decide. And it is a tough one, it is not an easy one. Because when you are talking about folks who have committed to conservation in the past, you have to balance the need for competition and equity, which is very, very important, the competitiveness of farming operations and equity, against making sure that if the purpose of this overall is to reduce greenhouse gases—because there is, at least, in my view, a recognizable concern in this area—that you make that balance.

And I certainly don't want to penalize people for decisions that they have made. I think we ought to be encouraging folks to continually look for how to use their land in the best possible way, not just for themselves and their families, which is important, but also, if they can, if there is a societal benefit, as there is when you grow crops, as there is with conservation programs today, there ought to be an acknowledgement of that.

Mr. SMITH. Okay. I appreciate that. We should all be good stewards of the resources we have been given. Are you certain—I mean, I hear you saying that there is a lot of potential, and maybe this, and maybe that. Are we ready to vote on this?

Secretary VILSACK. Well, I don't want to speak for you, Congressman, because I am not a Congressman and I am not in the position that you are in.

But I would say this: I don't think, as a country or as an international community, that we should delay decisions on this particular set of issues relative to climate change. I think the longer you delay, the longer you put it off, if you don't make a decision today, you don't make a decision tomorrow, you eventually will have to make a decision someday. And the longer we wait, the more severe that decision may very well be and the more costly it may be and the more difficult it may be.

So my view is, let's try to take some significant steps now. That is number one.

Number two, the international community, with the decision that was made by the previous Administration at Bali to establish and to commit to the roadmap in Bali, there is an expectation from the international community that America is going to lead on this issue. It may be difficult to lead if there is nothing to offer.

Mr. SMITH. Thank you.

The CHAIRMAN. I thank the gentleman.

The gentlelady from Colorado, Ms. Markey?

Ms. MARKEY. Thank you, Mr. Chairman.

And thank you, Secretary Vilsack, for being here today. And I also want to thank you for coming to Colorado just a couple of weeks ago to see firsthand the devastating impact that the bark beetles are having on our forest due to climate change.

I also want to take a moment to reiterate what many of my colleagues have said, that the offsets, we do believe and as I believe as well, that the offsets should be run by USDA and not EPA.

But let me switch gears just a little bit and ask you another question. The USDA has several existing conservation programs. How will compensation from offsets fit with the existing programs? Should, or will, farmers and ranchers receive financial incentives for implementing conservation programs and carbon offsets generated from the conservation programs?

Secretary VILSACK. I think we should continue to look for ways to complement and enhance all these programs. Again, I keep coming back to this, to this notion, and let me take a minute of your time to explain why this is important.

It is absolutely essential to provide options, as many possible options as possible, for farmers and ranchers to profit. The reason is, it is important for rural communities to have strong agriculture. It is important for us to focus on the fact that we lost 80,000 mid-sized operators in the last 5 years. Now, some of them may have migrated to larger operations, but the bottom line is we have lost people in rural communities, rural operations, and we need to continue to look for ways to provide options.

We also need to look for ways in which the smaller operators, where we saw a significant increase in numbers, will be able to utilize additional opportunities, additional programs, the farm bill that you all passed, all of those options, to be able to increase their operations and expand so that we can repopulate rural communities. We don't want to end up with just either really small farmers or really, really large farmers. It is nice to have a mix.

I think part of what I see, recognizing the skepticism that is out there, I understand that. But what I see is more options, more opportunities creates chances for us to hang on to those farming operations that I think are important to the health and vitality of rural communities.

Ms. MARKEY. Thank you, Mr. Secretary.

I yield back.

The CHAIRMAN. I thank the gentlelady.

The gentleman from Ohio, Mr. Latta?

Mr. LATTA. Thank you, Mr. Chairman.

Thank you very much, Mr. Secretary, for being us with today.

Just kind of a little background of my district, I represent—it is kind of a unique district. I represent the largest agriculture district in Ohio, and I also represent the largest manufacturing district in Ohio. It is kind of unique in that I have so many of my farmers, according to the Department of Agriculture in Ohio, that probably we only have about one percent of folks actively engaged in agriculture across our state. But so many of these folks that are engaged in agriculture full-time are also working full-time in manufacturing. And, as we also know in Ohio, that we get 87 percent of our energy from coal.

And I know that in your statement, on page two, you said that the President has offered a clear vision for the future. And the one thing that worries me is this: The President also said, last year when he spoke in San Francisco, that under his program that we are going to see electric prices skyrocket.

So I guess the question is, the first question I would like to ask is do we want to get a lot more younger people engaged in agriculture. Land prices are going up. You know, we all see the cost of everything going up. Every year when I go to all of my 16 counties, I check and see what the prices are on equipment every year, and those are pretty high.

But how do we get these young farmers engaged and how do we keep other people on the farm when we are going to be seeing such dramatic increases in utility costs across the board, and fuel, you name it, from fertilizer, *et cetera*, if we are going to have these dramatic increases right now? Because some people might say we are going to look down the road and have some other alternatives out there. But how do we save these people today.

Secretary VILSACK. Well, there are obviously a number of these programs that we are currently doing in USDA. And you are correct to make the connection between farm families and those who are working off the farm. Ninety percent of our farm families actually have to have some form of off-farm income either because of health insurance issues or income issues.

Of the 2.2 million operators in the country today, 900,000 of them are themselves required to work at least 200 days off the farm. So it is important. There is a marriage, there is a synergy between rural development and economic development in rural communities and the capacity to save family farms.

So part of what we are going to try to do is develop wealth creation strategies within the utilization of rural development tools.

For example, linking local producers with local consumers so that those dollars that are currently flowing out of a district stay in a

district, developing a continued effort at a more robust export effort, obviously bringing—crops leaving the district—but bringing cash into the district. The opportunity for renewable energy and renewable fuel to be expanded and to grow, creating manufacturing jobs, creating construction jobs, creating maintenance jobs.

I know in my home state, when we aggressively pursued a wind energy strategy, that we saw an increase in manufacturing jobs as a result of those windmills. We saw an emergence of new maintenance jobs that didn't exist before, and we saw community colleges respond and react with training programs.

So there are a whole series of things that I think that we have to do, and it is not one, there is no silver bullet. I wish there were. It is a multitude of things that need to be done.

Mr. LATTI. Let me follow up with another question. On page one and in the last page of your testimony, you say that the United States needs to be the leader out there, really, we are talking about this commitment to show the rest of the world where we stand. China has already said that they are not going to follow this program of a cap-and-trade or cap-and-tax, and today another statement was made by the Chinese that they are not going to abide by it. If they say they are going to keep doing what they are doing, how do we tell our constituents back home that they are supposed to be out there producing in a lot of cases against folks that are going to be doing it a lot cheaper, and we are supposed to be out there competing against the rest of the world in a lot of sectors.

So, I guess my question is when China is out there with 1.3 billion people and they are saying they are not going to do this, how do we lead from that angle, and we are putting ourselves at a competitive disadvantage?

Secretary VILSACK. Well, our capacity to make China, India, and other developing nations respond to the global challenge we face is by providing that leadership. I mean, we provide them a relatively easy out for inaction if we take no action.

Second, I genuinely believe that our capacity to innovate is unmatched in the globe today and has been unmatched for as long as I have been on this Earth, and will continue to be. And I think that we will be developing technologies and innovation that the rest of the world will need and want. I believe it will allow us to create the kinds of jobs, not only here in America that will stay in America, but creating products that the rest of the world will need as opposed to what we see and have seen with some of the consumer goods.

Mr. LATTI. Let me just stop you briefly. I am sorry, let me interrupt.

How long do you think it is going take India and China to decide to play ball with us?

Secretary VILSACK. Well, I have had some conversations with Chinese officials. I am not going to be able to tell you today, Representative, that it is going to be a month or 6 months. I just recognize and appreciate China wants to be recognized also as a leader. They want to be recognized in the international community.

They will have a very difficult time doing that if they do not engage actively and aggressively in conversations about climate change, and there is a recognition on the part of the Chinese Gov-

ernment of that. And, there is also a recognition on the part of the Indian Government as well in my travels and discussions with Indian officials.

So if we are not prepared, and if we have not led, it becomes increasingly difficult for us or the rest of the world to compel the Chinese and Indians to participate. If we do lead, it becomes much more difficult for them to say no.

Mr. LATTA. Thank you, Mr. Secretary. Thank you, Mr. Chairman.

The CHAIRMAN. I thank the gentlemen. The gentleman from North Carolina, Mr. Kissell.

Mr. KISSELL. Thank you, Mr. Chairman, and thank you, Mr. Secretary. Thank you for being with us today.

Let me just start out that I too have said that the offset program should be administered by USDA, that their record and their abilities and their expertise are there, and that is where we should go. As you talked about, we need to work together but go with what works best. I think that record belongs to USDA.

That said, yesterday in a hearing Under Secretary Tonsager, and I am hoping I am not too far off on his name, mentioned that he was in Brazil at a biofuels conference recently and that he very much supports biofuels and the role they can play in the future, especially with helping our farmers and creating green jobs.

He said that in Brazil they don't seem to be too concerned about land use in terms of feedstock, that only like one percent of their lands are dedicated to feedstock. This leads me to wonder why are we so concerned about what we should be limiting up here in the United States for our farmers to do because of fears of what they may or may not do in Brazil, when they don't seem to be concerned about it. And I was just wondering what your thoughts might be on that.

Secretary VILSACK. Well, Congressman, our view is that that is one of the reasons, among a number, why we advocated for a peer review of that portion of the RFS2 rule, number one.

Number two, I appreciate Under Secretary Tonsager's comments. I will tell you that we are focused as much on today as we are on tomorrow as it relates to the biofuels industry, which is why we are very concerned, as I am very sure that anybody who has biofuels facilities in their districts is concerned, about the creditworthiness of these enterprises today, and our challenges to figure out ways in which we can help provide appropriate credit assistance so that the infrastructure we have in place remains in place.

I am a strong believer in the biofuels industry in this country. I think if we are to end our addiction to foreign oil, if we are to become more secure in terms of our energy supplies, it is fairly clear to me that it has to be home grown. And it is fairly clear to me that we are seeing some stress in that industry today, and that we need to take significant steps now to address the credit issues, and we need to make sure that the peer review process, which has been agreed upon, is rigorous and evaluates it appropriately. And if it does, I think we will probably see a concentration on what happens within the borders of our country as opposed to what is taking place outside of the United States.

Mr. KISSELL. Thank you, Mr. Secretary. Mr. Chairman, I yield back my time.

The CHAIRMAN. I thank the gentlemen.

The gentleman from Missouri, Mr. Luetkemeyer.

Mr. LUETKEMEYER. Thank you, Mr. Chairman. Thank you, Mr. Secretary, for being here today.

I am just kind of curious, you seem to be—you seem to talk in general terms about the bill, and we need to be able to do specifics with it. We have had a member of both Energy and EPA here as well as a member of USDA. They have never given us a good number on exactly how much it is going to cost, how much these things are going to impact the different groups, especially farm groups.

The other day you made a statement with regard to some of the CO₂ credits with regards to \$25 or \$100 billion worth. And now EPA has come out with a new estimate that shows it is going to be from \$0 to \$660 million. There seems to be numbers all over the place, and it is difficult for us to get our hands around it.

Where are you with regard to the actual cost of the bill? How much is it going to impact agriculture as a whole?

Secretary VILSACK. Well, I appreciate that question, and we are in the process. As I may have indicated earlier, EPA is currently doing an analysis of what they believe the energy costs are going to be. They are retooling that analysis based on changes. In order for us to do an evaluation, as you have requested, we need to have those numbers.

I think we are confident enough to know that looking at the size of the problem and the size of the opportunity, relative to how much agriculture contributes to greenhouse gases and how much we believe and many believe it can help in solving the problem, that there is an opportunity side to this. We stand ready to work with you to develop a policy that maximizes the opportunity side, and we stand ready to continue doing research and to facilitate research to try to figure out how to reduce overall costs and expenses to our farm families.

So if you are asking me for a precise number, I don't have a precise number, but I believe, and I believe based upon what I have read, based upon what I know, and based upon my belief in the capacity of this country, I believe we can provide an opportunity side to this that is often not discussed when people are saying well, how much is it going to cost? Well, I would say how much can we benefit from it? At the end of the day, if we do this right, the benefits will outweigh the costs. I know there is skepticism about that, but that is what I believe.

Mr. LUETKEMEYER. Well, that begs the question, though, that if we are not sure whether we are going to get any benefit out of this and there is some cost to it, well, my fear is that we are going to cost some farmers their jobs. Because the President has said, and Mr. Smith a while ago intimated, what happens to it is farmers who can't participate in the program and you have skyrocketing costs for input costs for the farmers.

Where are we going to go with this? I mean how will those guys continue to exist if their costs continue to skyrocket?

Let me give you a little background. I come from a district that has a lot of small farms on it, which it is very difficult for a lot of these guys to absorb some of these costs. I don't think they can participate in this program.

Secretary VILSACK. Well, I am not convinced of that. If we establish it, as I indicated earlier, if we establish this properly, I think there will be an opportunity side. I do know this, and I feel faithful—confident enough to suggest to you, that the amount of greenhouse gases that agriculture and forestry create and the amount that it can reduce, that there is a net benefit there. And if there is a net benefit, you create a market process. I think the market will respond by providing a net benefit.

Now, is that net benefit going to be, broadly, over agriculture and forestry? I believe it will be. Will we respond and react? You are asking for us to sort of project into the future. Will we respond and react to those farmers who may not benefit from this program? Then I would suggest that we take a look at all the other options that we are creating.

I mean, this is ultimately about how many options you can create for farmers to stay on the farm. The more options we have, the more opportunities there are to profit. The more distinct and different they are, the greater the choices are. And it is our job to promote those choices, it is our job to advocate for those choices, and it is our job to try and figure out a way in which input costs are going to be reduced.

I will say to you, when I met with the CEO of the seed company the other day, and he said to me, we can increase corn yields significantly and we can reduce input costs by a third, how does that factor into the equation of costs relative to what we are talking about here? And what other innovations are going to take place?

I mean, I am not willing to limit. I think our capacity to innovate is limitless, and I appreciate that there are skeptics about that. But I look at our past. I look at what we have done in the past.

What have we done in the past? Every time we have been confronted with a challenge we have been the innovator. We have been on the leading edge of innovation, and it has built the strongest, most powerful economy and country in the world.

I am not willing to concede we can't do that and continue to do that.

Mr. LUETKEMEYER. I appreciate your patience and your optimism. I just hope you are correct, Mr. Secretary.

Thank you, Mr. Chairman.

The CHAIRMAN. I thank the gentlemen. The gentlelady from Pennsylvania, Mrs. Dahlkemper.

Mrs. DAHLKEMPER. Mr. Chairman, since I was not here, because I had some other meetings, I will—

The CHAIRMAN. We are going by when people came. The way we do things here is who gets here first gets rewarded by being high on this list. And you are fairly high, so you are next.

Mrs. DAHLKEMPER. Well, not knowing what questions have been asked, I am going to yield back at this time. Thank you.

The CHAIRMAN. All right, very good. I thank the gentlelady. Let's see, is it all right to go on our side one more, and figure out who is next here. The gentleman from Oregon, Mr. Schrader.

Mr. SCHRADER. Thank you, Mr. Chairman.

I appreciate your being here, Mr. Secretary. I know you are in a difficult position in a difficult spot, but I appreciate your coming here. I think a lot of what goes forward in the climate change bill

is all about confidence, and people have to be confident that whatever we put forward has a chance of working and have confidence in the people that are promulgating that program, and I would suggest to you that, like you have heard again and again, the USDA has a lot better confidence level with the farmers than the EPA.

We have experienced that in my own state with some of our open water policy. We have been able to share some of the jurisdiction with our EPA and our Department of Agriculture, and that has worked very, very well. So I just hope you will be strong in working with EPA.

A question would be do you believe that using the farm bill definition of *biomass* would enable us to sequester more carbon than the definition currently in the climate change bill?

Secretary VILSACK. I think it would certainly help. The difficulty that we sometimes face out in the countryside is a difference of rules, definitions, and regulations, which makes it sometimes more difficult for these farmers to understand all the choices that they have. So the degree to which there can be consistency, I think it helps, and in this particular case it would help a good deal. I think there are multiple opportunities in the way in which you all have fashioned the definition of *biomass* in the farm bill, and consistency would be helpful.

Mr. SCHRADER. A follow-up question—well, a different question. I mean, there are a lot of conservation practices already in play. A lot of farmers have been doing them for years. Is it your opinion that they should be getting credit in any bill, going forward, for some of the sequestration, if you will, that has already been accomplished?

Secretary VILSACK. This is obviously a difficult balancing act that you all will be engaged in, in terms of making sure that as you set this up so that you don't disincite activities, that you don't create a lack of competition or competitiveness on the part of these operations, and that you provide a degree of equity and fairness as these programs complement and reinforce each other.

I think it is important, in terms of the integrity of the program, that we are able to quantify the results and the benefits. And if we are able to do that, then these programs ought to be able to complement each other, and that is what we would be looking forward to trying to do.

Mr. SCHRADER. So you are saying they should get credit?

Secretary VILSACK. I am saying that that is obviously a policy decision that you all will make. I would hope that you would structure it in such a way that you don't disincite activities and that you complement activities and that you support those activities.

The CHAIRMAN. Would the gentleman yield?

Mr. SCHRADER. Yes, certainly.

The CHAIRMAN. Apparently in the bill, I thought they were talking about having some kind of a date, that if you did things before 2005 you weren't going to get paid for it and if you did it after 2005 you were. I think that is the situation, which is a very bad idea, you know.

Would you specifically comment on that?

Secretary VILSACK. Well, Mr. Chairman, I don't think the date is as important as the practice. I think the practice—

The CHAIRMAN. Well, how do you explain to one farmer, the guy has been doing this right for 20 years, that he is not going to get anything and then somebody that just starts now is going to get it. I mean, you talk about causing a problem out there, even with—I wouldn't be in favor of you guys running it if that is what the program is.

Secretary VILSACK. I was unartfully trying to agree with you, Mr. Chairman.

The CHAIRMAN. I yield.

Mr. SCHRADER. Thank you, Mr. Chairman. You made my point much better.

Secretary VILSACK. Doesn't the Chairman always do that?

Mr. SCHRADER. Yes. A question, you talked about clear science, and I actually agree with you, that we do have a serious problem facing the world as we speak about climate change. But there is some not such clear science that is being inferred by rulemaking in EPA regarding indirect land use costs, and has not been well received by members of the ag community.

I guess my simple question to you is do you believe in that indirect land use cost modeling that is being propagated by the bureaucrat?

Secretary VILSACK. We articulated and advocated strongly for peer review of that concept.

Mr. SCHRADER. Okay. I will take that as some degree of skepticism, and I appreciate that, Mr. Secretary.

Secretary VILSACK. Well, and let me amplify. I think it is a lot easier to determine what is happening inside the borders of your country than it is to determine what is happening outside the borders of your country.

Mr. SCHRADER. I think most of us would rather our taxpayer dollars stay in this country and not flow overseas, also.

I thank the gentleman. I yield back.

The CHAIRMAN. I thank the gentleman for his questions. We have a chart here, as long as we are talking about this international land use. I guess it is on the computer, no? If you could put that up, wherever my staff is.

This is the ethanol production. The blue line is the deforestation, and the green line is ethanol production. And so I don't know how much money you have to spend on a peer review to figure out what that is about.

Let us see, the gentleman from Pennsylvania, Mr. Thompson.

Mr. THOMPSON. Thank you, Mr. Chairman.

Mr. Secretary, good to talk with you again. I want to just start out by just saying I can't tell you how much I agree that innovation is important. Now, where I disagree is that what I see as a subsidy bubble, these allowances, as a way to promote innovation.

And, in fact, in terms of all the issues we have in agriculture, a lot of subsidies over the years which have been layered on have created significant issues, and to create a new subsidy bubble as this does would not be good.

In Pennsylvania, the Waxman bill has been projected, pretty accurately, to increase electricity costs by 30 percent, gas prices by 76 percent. The cost of fertilizer using natural gas as a primary feedstock will be out the roof for our farmers.

And I know that it is tough for you. You have been asked this a number of times in terms of actual dollars and actual costs. I will be a little more general with my question. Do you have any concern that the Waxman bill will increase costs for farms and ranches?

Secretary VILSACK. Well, you always have concerns, with all due respect, with everything you do here.

Mr. THOMPSON. I agree.

Secretary VILSACK. But having said that, I think there is—I don't know how we can—I am trying to figure out how to phrase this properly. I think that we have seen remarkable changes in agriculture. I think we are going to continue to see remarkable changes in agriculture. I think we have not yet limited ourselves in terms of seed technology. I think you are going to see a continuation and an evolution of seed technology that requires less inputs and less reliance on natural resources, which is potentially a good thing, particularly as it relates to chemicals, pesticides, water quality, and the amount of water used. I am confident that we are going to see that.

Mr. THOMPSON. And let me just say, I would agree with that, and I truly see that as a responsibility of USDA and in your role as Secretary to lead on that innovation, but I see where that has nothing to do with this climate change legislation.

Secretary VILSACK. Well, it does in this respect, that you may very well see a reduction in the amount of inputs of a particular kind, or you may see an application differential, or you may see a reduction in the amount that has to be applied, or you may find ways in which other inputs may be substituted for, or you may find seed technology that reduces the reliance on the current inputs. I think it is a changing landscape.

What we want to see are ways in which we can encourage, promote that changing landscape to the benefit of the bottom line of farmers, both in terms of helping to reduce input costs to the extent that we can and also again to creating that opportunity side. Frankly, going beyond that and trying to figure out ways in which we can enhance rural development so there are farm incomes, creating new markets, creating local markets. It is a combination of steps that have to be taken.

And that is why I keep returning to this notion of options and choices and giving folks in the countryside as many chances as possible to succeed.

Mr. THOMPSON. And I come back to the fact that much of what you are talking about is “may find,” it is speculative. I would argue that certainly promoting innovation is—I would think that is a key role of USDA.

Let me just take it a step further. My district has a number of ag-related—and a number of districts across the country—we have a number of what I see as agricultural-related crises right now.

For example, in terms of timber, which is under the jurisdiction of your Department, in the Allegheny National Forest our timber industry is struggling. I mean, my national forests that I have there, the Forest Plan says that they can harvest up to, what, 90 million board feet a year and it is sustainable. You know, you have no loss in terms of timber. You can harvest that much, it is good for everybody. It is certainly good for the local community. And I

have heard from some of the folks working for the Forest Service acknowledging the role of the economies with the forest.

Our dairy industry is just in terrible straits right now in terms of dairy prices and losing farms. And so I have concerns, obviously, with the costs. Because those are not speculative, they are not maybe. It is definite. You start raising energy costs 30 percent, these folks are not getting their bills paid right now. They are in dire straits.

And to take it a step further, really of a concern with the USDA, which needs to be there for that and all aspects of our agriculture industry, whether USDA is going to have adequate resources to meet today's real crises that we are experiencing, timber, dairy, and maybe others.

So my question is can you guarantee that the Waxman bill will not drain or distract the USDA resources, the current real crises in agriculture that people are living with and struggling with?

Secretary VILSACK. I believe that we can do the job that Congress directs us to do. I also believe that we are, today, trying to respond to many of the challenges that you have indicated, especially in the dairy industry. We have taken a number of significant steps in the recent past to try to help that industry.

I will say that as you work through the process, this is far afield from your question, but as you work through the process and you look at the Commodity Credit Corporation and some of the restrictions that sometimes Congress places on the Commodity Credit Corporation, and the ability of the USDA to use that tool to respond to crises, you may give us a bit more flexibility than we have today. That might help us provide more immediate response.

Again, we are looking for ways in which we can help, and we are up to the task. If you give us a job, we will do our level best to do it as you intended us to do it.

Mr. THOMPSON. Thank you, Mr. Secretary. Mr. Chairman, I yield back.

The CHAIRMAN. I thank the gentleman. The gentleman from Georgia, Mr. Scott.

Mr. SCOTT. Thank, Mr. Chairman. Mr. Secretary, good to have you, and I just want to comment on the excellent job you have been doing since you have been our Secretary of Agriculture. Good job.

Two points, if I may, I would like to get your response on.

The first one is that I am not prepared to move ahead with this bill for two important reasons. One is that I would like to get your response to is the treatment of derivatives markets.

Now, there is language in this bill that has been added by one of my colleagues, who is a very good guy, good friend, and that is Mr. Stupak, who is not a Member of this Committee, and I say it is probably well intentioned, but it is over broad, it is completely onerous, and it would do a great deal of harm to the marketplace.

Our Committee has jurisdiction, the Agriculture Committee, I am also on the Financial Services Committee. And, with the Agriculture Committee and the Financial Services Committee, along with the Obama Administration, if we could take a look at this language, try to get it removed so that we can put forward a bill that I think would deal more responsively in the derivatives trading in a more careful and calculated way than this language that is in

there—and I would like to—hopefully, you will agree with us on the derivatives.

But my other point, and I represent the Atlanta metropolitan area, around seven or eight counties around Atlanta, which is suburbs and rural. There is contained in this climate change bill a terminology, as far as housing is concerned, as ENERGY STAR®, which presumably is to signify that they meet some energy efficiency standard.

Now, Mr. Secretary, with the housing market still mixed and mired in a slump and housing prices continuing to fall, creating such an inherent bias towards older homes is not in our best interests.

So I would like to see if you could give us comments on the derivatives and this sort of bias which is in the energy bill towards older homes, which needs to be rectified.

Secretary VILSACK. Representative, I will admit that I am not as well versed about the derivatives as you are. I do recognize the concern. I know that the Chairman has expressed that to me on a number of occasions, and I respect his opinion and your opinion. It is something I obviously need to get more well versed on. But I will tell you that we stand ready to assist and help in whatever calculations or determinations may be necessary to improve that aspect of it.

As it relates to the houses, one of the efforts we are trying to do—and I can only relate to rural communities on this—is we are trying to enable homeowners of older homes to utilize the Recovery and Reinvestment proceeds, the weatherization money that is available to aggressively utilize that. We have a goal of a million houses countrywide to be weatherized.

I know that you all have looked at tax credits and ways in which you can incent the purchase of more energy efficient appliances and be able to provide, as you have with furnaces in the past, the capacity of people to actually get their money back with savings of energy costs. So, we should be doing everything we can.

As it relates to climate change, generally, there is the energy efficiency side, there is the conservation side, and there is the new technologies and clean technologies side. All of that has to be advanced.

Mr. SCOTT. You know, my point is that older homes are more predominant in rural areas. So if this bias is not corrected, it would have a disproportionate impact in rural communities if there is not some other way of addressing this issue, direct payments maybe.

Secretary VILSACK. Well, there are a multitude of programs within USDA that could be directed to assist or help homeowners respond and address and make their homes more efficient to try to overcome whatever bias might be created in any bill. I mean, we are prepared to use our tools as best we can to help homeowners. And the reason this is important is, as we repopulate rural communities that old housing stock becomes actually in a sense an inducement, and a capacity for someone to have homeownership at maybe a cost that is less expensive for the home than otherwise in a suburban or urban area. That is a selling point for us. And if we can make them energy efficient, then the operation of that house be-

comes a selling point to try to get young families to consider living in rural communities. I think we can make that case.

Mr. SCOTT. Absolutely. I just think, Mr. Chairman, that making direct aid to the homeowners in the rural areas would be a much more effective way of making them energy efficient, at the same time not having a negative impact on the economy of those rural communities and depressing the housing prices.

Thank you, Mr. Secretary.

Mr. HOLDEN [presiding.] The chair thanks the gentleman and recognizes the gentleman from California, Mr. Cardoza.

Mr. CARDOZA. Thank you, Mr. Chairman, and thank you, Mr. Secretary, for being here today. You have been a real friend since you have been in the office, and I appreciate you very much. I want to thank you in front of the entire Committee, well, who is here, and the audience, on implementing the Dairy Export Incentive Program and the work that you did to make that happen. You kept your commitment, you kept your word, and I want to publicly say thank you.

Secretary VILSACK. Thank you.

Mr. CARDOZA. I know it wasn't always easy.

Mr. Secretary, I want to discuss with you some of the issues about the last environmental bill. The big omnibus bill that we did in this Congress was the Endangered Species Act, and like this one, incredibly well-intentioned, but it has potential ramifications that are unanticipated in its implementation.

I want to start and preface my comments today by telling you that I think global warming is real, your statement with regard to the scientists and the conclusions amongst those knowledgeable on the topic are accurate. I want to tell you that I have been to places like Antarctica—not Antarctica but South America, the tip of South America—gone all the way up to the glaciers. There is a place called Glacier Hotel that is now surrounded by dirt, and the glacier is way up the hill, because of global warming and the climate change. So, it is a real problem, and it is imperative that we need to try and work on it.

But I am very concerned about the impacts of the specific legislation, both possibly foreseen now and those that might be unforeseen. And I am going to reference the ESA and the drought that is happening in my district right now. We just had another biological opinion on salmon that coincides with a biological opinion on smelt. And where I come from, the most endangered species might be the farmers that are trying to till the land because without water you can't farm, as you well know. We do a lot of irrigation. We used to be a desert at one time. And I think that the legislation has actually caused us, in its implementation, to have the courts interpret those rules in such a way that we have a manmade drought and a manmade crisis for agriculture.

And so I want to raise that, and I am just going to raise my other issue and let you comment on both of them at the conclusion.

The second part of this is that as we look at the way this bill is written, and the work that I have had to do with EPA, I have found that farmers tend to be environmentalists, and they understand rural America. But the folks that work at EPA tend to be urban, and it doesn't work the other way. They don't get agri-

culture, they don't get rural America. They form their views of the world in large cities, and then expect us to implement their views of the world, and it is an actual agricultural bias that I think is very important to take into consideration as we decide who administers the program.

I think that the USDA can be incredibly positive and effective stewards of our God-given planet, but I am not so sure that EPA can understand the dynamics of rural America. And so I am going to take a very jaundiced view of this legislation if, sir, you are not in charge.

And with that, sir, I will give you the opportunity to respond.

Secretary VILSACK. Thank you, Representative. First of all, let me express my understanding of your concern about your farmers and specifically your dairy farmers. It is a difficult, stressful situation, and we continue to look for opportunities to provide some assistance.

You mentioned drought. As you probably know, the Secretary of the Interior and myself established a joint task force. The Secretary of the Interior is sort of the lead, as he needs to be, given the issues that you have addressed. And I know that there is a good deal of sensitivity to the challenges, and we are searching for ways in which we can provide assistance and help.

Let me just say that in a broader perspective, USDA has a role and responsibility relative to the maintenance of its forests that can have an impact, a positive or negative impact, on water, on both the quantity and quality of water. And what I hope to be able to do with staff and with the Forest Service is to integrate proper management and maintenance processes, with the assistance of Congress in providing us the proper budgeting proposals in terms of maintaining the forests, linking that to our working lands and the private working lands programs of NRCS. So we are establishing a better link with our urban friends so that they understand and appreciate, as the farmers do, the importance of forests and water. And I hope that through that effort we can do a better job of being conservers of that.

Let me also join in your comments about farmers being stewards of the land. No one cares more deeply about the health and welfare of soil and water than the people who rely on the soil and water for their very livelihood. Every agency of government has their area of expertise, their area where they specialize, their area where they know more than a lot of folks. And I would suggest, with respect and with pride, that the USDA and the people who work at the USDA care deeply about the farmers they serve and the land and the water that we are talking about. As a result, over a period of years and decades, we have developed a level of expertise both in their relationship with farmers and in their understanding of what farmers need and do. I think that puts them in a unique position to contribute significantly as we embark on climate change legislation.

And we stand ready to partner with all of the agencies and, hopefully, in a framework that you all establish that allows each agency to utilize its strengths to complement the strengths of other departments. And we have, as I said earlier, a unique set of tools, and we are prepared to use them if given the opportunity.

Mr. CARDOZA. Thank you.

The CHAIRMAN. The chair thanks the gentleman and recognizes is the gentleman from Texas.

Mr. NEUGEBAUER. Thank you, Mr. Chairman. Mr. Secretary, it is good to see you again.

Mr. Secretary, there is an old saying in Texas about a cowboy that thinks he is bigger than he is, and he says, we refer to those folks as all hat, no cattle. And when I look at this energy bill, that phrase comes to my mind that this bill, when it goes to energy title, it is all hat and no cattle. As a tax bill, it is all tax and no energy. And one of the things that concerns me about that is it is being sold as an energy bill. And when you look through the bill—and I haven't read it all—but it doesn't give us much hope that we are going to make much of a significant dent in our dependency on foreign energy.

But, more importantly, as I look at what the impact could be, I hear this Administration talking about reducing the safety net for agriculture. I look at the consequences of this bill, and it increases the cost of inputs, and I think about my Congressional district where the soils are such that there is going to be very little opportunity for them to participate in any carbon offsets.

And then when I listen to other people, and not just conservative folks, but folks that maybe are a little bit more left leaning, an economist, Martin Feldstein, this week or last week, from Harvard, supposed to be a smart guy, says this plan is all pain and no gain. And he goes on to say that a 15 percent reduction would reduce global CO₂ by less than four percent. And he goes on to say unless China and India sign on, it puts America at a huge disadvantage.

And I know of your passion for bringing new farmers into agriculture. I am worried about new farmers, but I am also worried about old farmers. But when I look at that scenario, that doesn't paint a very pretty picture for agriculture, particularly, for example, cotton, which we grow in my district. India and China are some of our competitors. India and China, China buys some of our cotton, as you know. But if our competitors are not going to sign on to this, and we are going to sign on to it, and we are going to put this huge burden on American business, and particularly American farm families. I am trying to figure out—and then I find out that maybe we might, we might, reduce CO₂ by less than four percent globally. I think what I need from you, Mr. Secretary, and what this Committee needs from you, is you need to write us a letter and assure us that in your best analysis, your best understanding of this bill, that you do not think it will have a significant impact on American agriculture. If you are not able to write that letter, then I am very concerned about that.

So I would give you the floor.

Secretary VILSACK. Well, I appreciate the opportunity to respond. You have obviously said a lot in a couple of minutes.

Let me specifically respond to the China and India issue, and this is very strongly based on my understanding of the circumstances and my discussions with officials. I think it is important for China and India to participate in this. And, in order to do so they are—we in this country can't give them a convenient excuse not to. By the failure of this country to respond and lead, as a lot

of people, after our commitment in the Bali Framework, expect us to, they expect us to lead. We made a commitment last year to the Bali Framework, and that was the first indication that the United States was going to be serious about this. They are looking forward to leadership, and we will need to provide that.

I think, frankly, also, early adopters have the potential advantage in terms of technology and innovation which I honestly and truly believe we will be able to export and create jobs here, jobs that might very well be located in small communities across the country. And since there is a significant dependence in off-farm income, it is a strategy, but by no means the only strategy, for helping preserve the farmers that you want preserved and that I want preserved.

There are other strategies that USDA are implementing right now and will continue to implement. Again, it gets back to providing a menu, a set of choices, a set of options as extensive as you probably can provide.

We are cognizant of the importance of the safety net. We are cognizant of rural development, we are cognizant of exports, we are cognizant of breaking down barriers that exist in trade. All of that and other steps that we are taking are important strategies.

I think this is an opportunity—the opportunity side of this has to be understood, and we are committed to making it work. If you all decide that this is what you want us to do, we are committed to making it work.

Mr. NEUGEBAUER. Yes or no, this will not have an impact on American agriculture?

Secretary VILSACK. Well, I am going to answer your question.

Mr. NEUGEBAUER. Okay.

Secretary VILSACK. And the answer is, yes, it will have an impact, okay. It will have an impact in terms of opening up opportunities that don't exist today, expanding opportunities and a list of choices that farmers have, encouraging them to use land in multiple ways that could potentially be profitable. Will there be increased costs on one side? Yes, but I believe at the end of the day the costs, if we structure this right, if we manage it right, the opportunity side is beneficial to the farmer. And I am committed to making it work, from the USDA perspective to make it as beneficial as possible for the farmer.

Mr. NEUGEBAUER. Do you think it is structured correctly?

Secretary VILSACK. I think that it is important to specifically support the notion, as I think everyone in this Committee, as I listen to what you all have to say—all of you—whether you agree on the bill or not, I think you all agree that agriculture and forestry has a role to play and that that role is an important role to recognize in any legislation that goes forward, and I certainly agree with that.

Mr. NEUGEBAUER. But I heard you say you haven't had a chance really to look at some of the data, so you are not really prepared today to endorse this bill, or are you endorsing this bill?

Secretary VILSACK. I am endorsing the opportunity side of cap-and-trade. I am endorsing the opportunity side that I believe exists because agriculture is seven to eight to ten percent of the problem of greenhouse gases, and by most estimates it is somewhere be-

tween 20 to 25 percent of the solution. That leads me to conclude that there is an opportunity side to this that we need to maximize and we need to take advantage of.

Mr. NEUGEBAUER. And is it worth trillions of dollars for a four percent or maybe less return in CO₂?

Secretary VILSACK. I have not had an opportunity to look at the study that you reference on that specific number, but I will tell you the challenge we face—and if I can just spend a minute to respond—the challenge we face is probably, in my view, best articulated by a recent report from the McKenzie Group where they suggested that the challenge that we face today is improving and increasing the productivity of a ton of carbon that we emit into the air, or an equivalent of a ton, similar to what we did with the Industrial Revolution.

We increased productivity tenfold during the Industrial Revolution. We need to do something similar to that today. Today we produce about \$730 worth of goods and services from a ton of carbon emitted into the atmosphere. We need to get it up to \$7,300 in order to reach the thresholds that are being discussed, \$7,300. You know, it is a tenfold increase.

Well, we did it with the Industrial Revolution. The challenge, though, is the timeframe. The Industrial Revolution was 125 years. We have roughly 40 years or so to get it done. We have to get working. It can be done, it has been done before. We have seen tenfold increases in productivity. It has been done before. It can be done again, but we have to get going.

The CHAIRMAN [presiding.] I thank the gentleman. I think we are done on our side. So the gentlewoman from Wyoming, Mrs. Lummis.

Mrs. LUMMIS. Thank you, Mr. Chairman.

Mr. Secretary, I am so pleased to hear you talking about innovation and American ingenuity and what a role it can play in climate change. And so if that is the case, why don't we do this? There are two elements to this bill, there is cap and then there is trade, and the cap part is to place a limit on carbon emissions, a goal that we will meet by the year 2050.

Why don't we just go with that? Why don't we just say let's place a cap on carbon emissions so the President can go to Copenhagen and say we have placed a cap on our emissions. We have set a goal. And through American ingenuity and through American productivity and innovation, our industries will meet that goal.

Instead, we have this enormous, complicated, incomprehensible trade component, which will cost farmers and ranchers all over this country hundreds of millions of dollars in aggregate, and that has nothing to do with the cap.

So if this bill were really about climate change, I do not, for the life of me, understand why it is not just a cap relying on American business ingenuity and our strength of character to figure out constructive business ways to meet the cap.

Instead, there is this massive tax component that has nothing to do with the environment. What is your response to that?

Secretary VILSACK. Well, I think that the desire is to establish a market-based system, and in order to do that you have to basically put a price, if you will, on carbon. And as you do that, you

have to create a market in which that commodity, if you will, can be traded. And depending on how you do it, whether you auction off allowances or whether you allocate them, you can accelerate innovation.

Second, I think it is important and necessary for us to figure out ways in which we can mesh what has already taken place internationally so that we don't put our companies at a competitive disadvantage. If you just establish a cap, it is conceivable that you create a competitive disadvantage. If you allow us to mesh our systems, you put us in a better position to compete.

So, there are many reasons why it is structured the way it is. Obviously, there is a lot of debate on how to do this, and you are having it today, and I apparently am in the middle of it.

Mrs. LUMMIS. Indeed you are.

So let's move on to a topic that is near and dear to your heart as an Iowan. Do you support the use of ethanol as part of the renewable energy solution?

Secretary VILSACK. Yes.

Mrs. LUMMIS. Okay. Well, then, you are no doubt familiar with the ethanol industry's reliance on natural gas to operate their distilleries. Do you know how much natural gas is necessary to produce ethanol in support of our renewable energy efforts?

Secretary VILSACK. You know, I don't know the specific numbers, but I also know that there are some innovations and advancements in the production of ethanol which might potentially get us away from an over-reliance on natural gas.

Mrs. LUMMIS. Let me tell you, because I just do happen to know how much.

Secretary VILSACK. Okay, I will learn.

Mrs. LUMMIS. It takes about 28 billion cubic feet of natural gas to produce 1 billion gallons of ethanol. In fact, some of the industry sources that I talked to have said last year alone the ethanol industry used a trillion cubic feet of natural gas to produce the ethanol in the U.S. for last year.

Obviously the Waxman-Markey bill is going to drive up the cost of natural gas, putting ethanol even further away from being economically viable, which creates a further spiral: in order to make a viable ethanol industry we are going to have to subsidize it even more.

So it seems to me that we are moving the target away from where we need to be going instead of closer.

Secretary VILSACK. Well, that doesn't take into consideration what is done with the allocations or the allowances and the resources from those allotments, or if you auction off the allowances. It also doesn't take into consideration the efforts under way currently within the ethanol industry to become far more efficient in terms of energy use, and it doesn't take into consideration new technologies that may potentially take us away from utilizing energy—or new energy or being able to recycle it from the production process, using the energy from the production process to continue in a sort of continuous cycle.

So this is not static. That is the issue here. I mean, we are talking about discussion points where it is not a static world. It is a changing world. It is an innovative world.

And, I hope that as you consider this, as you look at this, as you fashion this, as you frame it, that there is at least a recognition of the innovation side of the equation, that we are just not going to stay where we are. We are going to improve, we are going to get better, we are going to get efficient, we are going to be smarter about what we do.

Mrs. LUMMIS. Mr. Secretary, I couldn't agree with you more. I am a big believer of innovation, but I really err on the side of private market innovation to meet goals that are set by government rather than government telling private business how they are going to get there.

But I do appreciate your remarks. Thank you so much.

Secretary VILSACK. Thank you.

The CHAIRMAN. I thank the gentlelady. The gentlelady from Pennsylvania, Mrs. Dahlkemper.

Mrs. DAHLKEMPER. Thank you, Mr. Chairman. And thank you, Mr. Secretary, for spending so much of your afternoon with us.

This question should be a little bit easier than some you have received so far, but I want to ask you a question about the fact that various climate change proposals that include the carbon offset programs have indicated that such a program would need to be fully implemented and functioning shortly after the enactment of the legislation.

And I want to ask you, would such a system be able to be operational within 1 year after enactment if Congress were to pass a carbon reduction program this summer? And where is USDA in terms of being able to make that happen?

Secretary VILSACK. Well, obviously, that depends to a certain extent on the way in which it ultimately is done, and ultimately the nature and structure of what you do.

Having said that, when the President challenged us about 32 days ago for us to implement the energy title of the farm bill in 30 days, I wasn't sure we would be able to do that. But we worked hard to get it done.

Again, if we are instructed to do something, we will move mountains to get it done, because this is important for the country and it is important for rural America to get it done and get it done right. If we are given a role, we will try to do it as expeditiously and as appropriately as possible.

Mrs. DAHLKEMPER. On the outreach and education side of that, and we can stay on that same USDA role, you are going to have a role in educating those in the agriculture community who really, obviously, don't have a lot of familiarity with things such as climate change mitigation concepts and actions and terminology. And I guess what role do you see USDA playing in providing the agriculture community with that education?

Secretary VILSACK. Well, I recognize that there are concerns and uncertainty about this. And so your question is a good one, which is that we will have a responsibility and role to educate. And the benefit, or the tool of asset that USDA has is it has a network. It didn't have to create a network to do that education. It has, working with extension, working with its research in economics and education aspect, working with the Farm Service folks, working with Rural Development folks, we have a network of people on the

ground in virtually every county of this country that can provide assistance.

And, with technology, if we wisely use technology, we can also provide information that will be easily accessible and convenient for farmers and ranchers to access.

And so I think that there are tools, both human tools and technology tools, that we have available to us that we will be ready to use, and are looking forward to using, if you direct us to do so.

Mrs. DAHLKEMPER. So you currently have the technical staff with the capabilities to help relay the strategies to the public?

Secretary VILSACK. We have dealt with 750,000 conservation programs and applications and contracts, and we have technical experts, hundreds of technical experts available. I have a lot of faith and confidence in the people that work for USDA, and the reason I do is because as I travel around the country and I stop at Farm Service offices, or I stop at the Rural Development offices and I talk to these folks, the one thing that impresses me, no matter what part of the country I am in, is how deeply committed they are to the people they serve. If they can help, if they can provide information, they are prepared to do it, and they are interested in doing it.

Mrs. DAHLKEMPER. Last, I guess within this—if this legislation would pass and there would be this opportunity, do you see opportunities to collaborate with other agencies? And how would you see that progressing?

Secretary VILSACK. I think it is vital that there be collaboration and I think that the idea is that as this is being constructed, that the Congress understand the various strengths that each department has, the expertise, the technical information, the unique experiences that each department has, and utilize those experiences and compel cooperation, compel a cooperative effort not just at the Federal level but also at the state and local level.

Mrs. DAHLKEMPER. Are there specific agencies that you would see USDA working closest with?

Secretary VILSACK. Well, I can think of three or four. The Department of Energy, the EPA, the Department of Commerce, the Department of the Interior, just to name a few.

Mrs. DAHLKEMPER. Okay. Thank you. I yield back.

The CHAIRMAN. I thank the gentlelady. The gentleman from Tennessee, Mr. Roe.

Mr. ROE. Thank you, Mr. Chairman. Thank you, Mr. Secretary, for being here. I come with a background as a scientist and a mayor, and our city where I am from, Johnson City, was voted the green city of the year in the state and it won the EPA award for methane use in the country and also some other—we had the first recycling program in the state and the only one that is complete now. But I haven't seen this great growth in green jobs. And I just met in our district with our farmers and our dairymen and they are really in desperate times there. Any added costs, I can't think of any business in the world, having to run one for over 30 years, where you can increase the cost and your commodity prices don't go up, how that doesn't put you out of business. When your costs rise and your income doesn't, how do you explain that? And also you made a comment about—and we just look at the experiences

of Europe right now, what happened in Europe, within the EU, is that they gave out so many allowances that the carbon per ton went down from 30€ per ton to 1/10€ per ton and essentially didn't do anything to lower CO₂ emissions. What lowered the CO₂ emissions in Europe and in the United States, which dropped almost exactly the same percentage, was our GDP went down, our output went down. So when you lower your GDP, CO₂ necessarily will go down, and that is what I have seen.

We have another company there, a lot of our farmers work at Eastman Chemical Company. And Brian Ferguson is a CEO there. They use 60 carloads of coal a day. And this particular bill, they have looked at and evaluated, it will essentially eliminate their profit. And their options, they cannot raise prices because they compete on a world market just like our farmers do. And what will happen at that point, they have two options: That is either to go out of business or to move overseas where they are not complying, where China and India are not. And I don't know why you think India and China, when they have a huge competitive advantage on us, are going to suddenly give us an advantage back. They won't do it. I can't believe that will happen. Could you comment on that?

Secretary VILSACK. Well, first of all, let me respond to your comments about dairy again. I want to make sure that you know that I know how difficult the industry is and the difficulties they are currently having, which is why we have taken steps at USDA to provide assistance and help. And your comments suggest that there is no opportunity side to this. And I guess that is an assumption that you and I have a disagreement about. I think there is an opportunity side and if there is an opportunity side, then that is a profit opportunity side. And, if we structure this right and operate it right that we will provide more options, more choices, and more profitable opportunities for farm families. I am not willing to concede that it is just a total negative. I think I see the opportunity side of this.

As it relates to China and India, again I think that we will never be able to move them where they have to be if we don't ourselves provide some leadership. And if our leadership is to essentially say we are just not interested in doing anything, we are just going to continue to put this off, I think that plays into their hands.

Mr. ROE. Here is the other things that the EU has noted, that their energy costs for—they didn't reduce CO₂ using this, but the cost of business and the cost to individuals went up. The same thing has happened in Spain. And right now, the absolute worst time is when our farmers—they are hanging on in my district by a thread—is to increase their costs. If you do that, you are going to put them out of business. And we can talk about—the innovation everyone is talking about is a good thing. But today is today, and the first thing, we tried this carbon tax a year ago when oil went to \$147 a barrel and it about broke our farmers. We tried that last year. Fertilizer, I have asked around, nobody knows what a ton of fertilizer costs. Well, it cost \$1,000 for Triple 19 last year. It is down to about \$650, but I can assure you that with oil and natural gas prices rising and with this carbon tax, it is going to go up through the roof.

And I will ask one last question. Do you know how many windmills it takes to replace one power plant, one coal-fired power plant if the wind blows a steady 13 miles an hour? That is what—the TVA passed this on to me. Do you know how many?

Secretary VILSACK. It depends on the size of the windmills.

Mr. ROE. How many? Pick your size.

Secretary VILSACK. It depends on whether you have 1 megawatt, 2 megawatt. I don't know—

Mr. ROE. About, 3,700.

Secretary VILSACK. Let me tell you my experience with windmills. And that is that it has—in my state there has been a real opportunity created from wind. We are now the number one state in the country in terms of wind generated electricity on the grid. We have actually seen manufacturing jobs created as a result of it. We have seen community colleges develop new training programs for maintenance jobs. And, we are seeing a real interest in our farm families of having that option of being able to rent their land for a windmill and also be able to produce a crop on that land.

Mr. ROE. But a plant, a gas powered plant we are going to build and TVA is going to also create jobs and also going to create those opportunities, too.

Secretary VILSACK. I think you look for ways—as we look at carbon sequestration, I am intrigued by what ADM is currently looking at in terms of their carbon sequestration project, in which they are going to try to figure out ways in which they can use opportunities underground to sequester carbon. As we look at that, that is another potential opportunity side. I think there are opportunities here. And I am not willing to concede that there is absolutely no opportunity side, no upside to this.

I realize the concerns that you raise, and what we have to look for is an opportunity to balance off whatever those concerns might be.

Mr. ROE. I am looking at losing 10,000 jobs and that is not good. Thank you, Mr. Chairman.

Mr. HOLDEN [presiding.] The chair thanks the gentleman. I recognize the gentleman from North Dakota, Mr. Pomeroy.

Mr. POMEROY. Hello, Mr. Secretary. You are the sixth Secretary of Agriculture I have had the chance to meet in the course of my service on this Committee, and knowing you—knowing your reputation I should say as a North Dakotan watching Iowa, I am very excited about the tenure in front of you at the U.S. Department of Agriculture. In fact, you have indicated just the same kind of common sense notions about rural America that base my high opinion of you. You have said that you think early actors in terms of favorable conservation practices, certainly, ought to have some recognition, should there be an offset plan emerging under climate change legislation. The bill does not provide for that. I couldn't agree with you more. The consequence, of course, we know the consequence. They tear up CRP. They do all—they tear out the conservation practices so they can put them in again and get paid for them. It makes no sense. It actually would have an adverse environmental impact, and your leadership on helping us understand that one is going to be very helpful. Not help us understand it, help process,

understand, and include early actors as we move the legislation forward will be very important.

Another thing, I enjoyed learning of your skepticism on indirect land use as calculated by EPA. I don't think there was a state that had a better record of pursuing renewable fuel production than yours under your leadership as Governor. So it had to be a terrible concern to you as a member of the Cabinet to see here EPA comes out with this indirect land use proposal which is going to essentially grandfather and freeze ethanol and knock out biodiesel altogether, notwithstanding the 2 billion gallons of production capacity we now have established.

You mentioned earlier in your testimony that you didn't think where the offsets got placed was so important because you could work with EPA. I am curious about how it is coming, trying to talk to EPA about this indirect land use business on renewable fuels. We have not gotten very far as an Agriculture Committee. We had the agency in and to me it was pure nonsense that they testified, and I would be curious whether you are fairing any better.

Secretary VILSACK. Well, I appreciated the fact that Administrator Jackson was open to the suggestion of a peer review of indirect land use. We are indeed plowing new ground and this is a fairly complicated topic, and I am encouraged by the fact that there is going to be a rigorous peer review as there needed to be. She was open to that.

We have advocated the need for us to take a look at the blend rate of ethanol as a strategy for continuing to see this industry that is important for us in terms of reducing our addiction to foreign oil and creating homegrown energy opportunities.

I am hopeful. I can't say today that the blend rate is going to be increased, but I am hopeful. There is a willingness to take a look at that. The willingness of the Administrator to jointly appear with me in a number of different ag fora was an important step now. I recognize that there is very deep skepticism, and that is why I think it is important for whatever structure is created that there is an understanding and appreciation for the unique tools and characteristics of each department, and the expertise that each department can bring and you take full advantage of that expertise.

Mr. POMEROY. That is precisely what we think. You have talked about agriculture, you have talked about new opportunities. Well, we have never found agriculture opportunity and the EPA fitting naturally in the same sentence. And so we feel pretty strongly about this needing to be realigned. And certainly they picked a mighty inopportune time to reinforce negative notions long held in this Committee, at least by me, about the fair and discerning approach they take to production of agriculture.

The rural electric co-ops financed under the Rural Utilities Service within the U.S. Department of Agriculture are very anxious about this bill, and they oppose it in its present form. We are looking in our area at co-ops playing such an important role in providing power to our farmers. It is coal-based power, and horrific rate increases have been projected. They indicate that the target is—you have to bring it down more quickly than technology is developed and can be implemented. They also believe giving free allowances to people that don't have carbon emission issues in their

present baseload generation provides a windfall to them even while we are struggling with very substantial new costs under the legislation in our parts of the country.

Have you had a chance to visit with the co-ops as part of your administration in the United States Department of Agriculture or do you have an impression of what they are saying?

Secretary VILSACK. Well, I appreciate that they are concerned about the way in which the allowance allocation has been determined at this point in time. Essentially it is equally based on emissions and sales, which for those who use coal creates an issue and a problem. So we are aware of their concern about that balance and the belief that perhaps it needs to be tipped in a different direction.

And I also appreciate the role that the rural electric cooperatives play in economic development in communities. In my state, in particular, they are very much involved not just in providing power, but also providing resources and assistance in creating industrial parks, in creating new manufacturing opportunities, and trying to encourage business opportunities. So we obviously need to be sensitive to those concerns.

I am anxious to work with you and with the Members of this Committee and the Members of Congress in any way we can to help educate folks about the challenges that RECs face, so that as you make decisions about policy that you make them in the most informed and best way possible. We are obviously—they obviously need to survive. They are important to rural America.

Mr. POMEROY. Thank you, Mr. Chairman.

Mr. HOLDEN. The chair thanks the gentleman and recognizes the gentleman from Louisiana, Mr. Cassidy.

Mr. CASSIDY. Thank you, Mr. Secretary. And obviously you have a position, and obviously we are expressing our concern. I am among those. First, I would like to say I have a statement to submit for the record. I think what has kind of boggled my mind is that there is a lot of dots but it seems the dots seem to be connected by conjecture, if you will. We can hope that things will work, but we are not quite sure they will.

I will give some examples. Wow, the impact of this is going to be soon. My state is an energy state. They predict there will be a 35 to 40 percent decrease in employment in petrochemical and crude oil refinement in 15 years. So the timeframe of this is very short. Now, it is kind of an immutable thing about this issue, it is going to take a while for technology to be developed and deployed. So when you speak of innovation as perhaps being the solution, I am wondering will it be out there within 5 to 15 years because the dramatic loss of employment tells us that these changes will occur rapidly. So I am looking at the amount of emissions, not by forestry, but just by agriculture and, according to the CRS report I am reading, in the last something years it has gone from 460 million metric tons of CO₂ to 582. So we are actually on an upward slope of emissions from the ag sector with only about a 30 million sequestration by ag, and yet we are going to deploy, develop and deploy the technology to reverse not just the upward rise but actually bring it down within 5 to 15 years. It just doesn't seem like it is going to happen.

Your thoughts?

Secretary VILSACK. I wish we could travel back 15 years ago and see what technology existed then and compare it to the technology today in all aspects of our economy.

Mr. CASSIDY. If I could, I would say that 16 years ago we would have known that it was about to be born. It isn't as if it had not yet been—in terms of it was going to be deployed 14 years ago or 10 years ago, that means 15 years ago it was about to be birthed.

Secretary VILSACK. With respect, I am not so sure that is necessarily the case of all the technologies. And you and I must be looking at different numbers and different figures because I am of the view that agriculture's capacity to sequester and agriculture's sequestering capacity today outstrips its emissions.

Mr. CASSIDY. That is if you combine ag plus forestry. If you split those up—I am looking at a CRS report from June 8, 2009. It is on the table on page three. If you split ag from forestry—

Secretary VILSACK. That is tough to do because so many forests are privately owned and basically part of our—of what we grow and what we raise in this country.

Mr. CASSIDY. I didn't know—it wasn't my impression that the farmer would simultaneously have a large forest interest.

Secretary VILSACK. The farm I own, about 90 acres of it is timber.

Mr. CASSIDY. I think of my Louisiana sugarcane farmers and my rice growers, and it seems unlikely that they have a large—

Secretary VILSACK. It is obviously clear there are differences around the country. But the bottom line, it is hard to separate the two maybe because within USDA we think the Forest Service is part of our responsibility and we see that it is part of agriculture.

Mr. CASSIDY. CRS splits it out. And when I look at that and I look at the rate of growth of emissions in just the ag sector, it seems, again, are we in 5 to 10 years going to be able to develop and deploy that which not only reverses—

Secretary VILSACK. I can just—again—this is actually two conversations I have had with CEOs of seed companies, major seed companies. And they are genuinely convinced within 10 years you are going to see significant increases in productivity and significant decreases in inputs by virtue of just seed technology alone.

Mr. CASSIDY. I wonder if they are going to use more fertilizer which the cost will increase.

Secretary VILSACK. I don't think so. No.

Mr. CASSIDY. Let me ask something else because I am almost out of time.

I have to admit it also seems a dot that is not connected in the sense that we are imagining there is going to be increased rural activity, and yet as I look at the graph, inevitably we are going to let more land go fallow in order for it to be afforested—if I am pronouncing that correctly. I just learned that term—and so the land is going fallow. So we are going to produce less and yet at the same time our coal-fired co-ops are going to increase the utility rates for the farmers. And the farmers who are driving longer distances to get anywhere, because they live in a rural area, are paying more for gasoline. It seems like we are truly increasing the cost of living in the rural area fairly substantially.

Secretary VILSACK. That assumes that we don't have productivity increase, which I am not willing to concede. It also assumes that there isn't a network of local markets that are created through our efforts to try to link local consumption with local production. It assumes there isn't going to be a biofuels industry that allows us to have regional distribution of biorefineries that are closer, so farmers have markets where they don't necessarily have to transport product as far. It assumes that there isn't going to be markets for agricultural products today that are considered waste material and have little or no value. It makes a lot of assumptions that, frankly, I am not willing to concede.

I believe that all of what I have just outlined can and ought to happen. And I believe with the right set of policies it will happen.

Mr. CASSIDY. It is hard for me to imagine that someone growing rice in south Louisiana will be able to sell the entirety of their product within south Louisiana. So inevitably there is going to be some transportation that is involved there. And I will say again, going back to what Brookings suggested for the loss of employment in petrochemical, we have a timeframe which is tight, 5, 15 years. Again, what I may say you are conjecturing has to be developed and deployed within 5 to 15, that seems unlikely.

Secretary VILSACK. I could be wrong about this. I could be completely wrong about it because I don't have the numbers. But I would be willing to bet that we have more employed people in America today than we did 15 years ago. And I am willing—maybe we can come back 10 years from now and you and I can settle this up. But I am willing to bet we have more employed Americans 10 years from now than we do today.

Mr. CASSIDY. Not in petrochemical. Look at the Brookings report.

Secretary VILSACK. It may be industries we don't even know exist. There may be opportunities.

Mr. CASSIDY. Brookings actually says we are going to be down .5 percent in the overall economy. The energy sector gets really better. And that is Brookings, which is obviously a little left of center. I would love to keep talking, but I have way gone over my time.

Mr. HOLDEN. The chair thanks the gentleman and recognizes the gentlewoman from Ohio.

Mrs. SCHMIDT. Thank you very much. Before I begin, I have two letters, one from two different food groups that I would like to offer for testimony, if I could, sir.

Mr. HOLDEN. Without objection.

[The documents referred to are located on p. 226.]

Mrs. SCHMIDT. And thank you for that. I will leave them here to collect.

Mr. Secretary, I don't even know where to begin. I am a pretty practical, skeptical, direct to the point person. I am a farmer. And you have said something that really has irked me. You have said assume, assumption. And my mother said break it apart, you won't like what you hear. We are getting ready to embark on something, untraveled water in this country, and I don't know where we are going to be in 30 years when we do this. But my main concern are the farmers that I represent in my district. And you go on and you say that we are going to have these great opportunities, but I look at where my farmers are and where they live, the roads and the

infrastructure, and I am not so sure they can really dramatically change their way of life.

I also know that when we implement this bill, and if this Congress chooses to do this, that they are going to have a direct production cost without reaping the benefits. And I am really concerned with that because the bottom line is I represent those people first, not the rest of the world.

But having said that and in telling you my practical nature and skepticism and my directness, I have a bunch of questions I want to ask and I am going to ask them all so I can get my time claimed.

I have heard a lot of generalities about the new jobs to be created in small rural towns. You need to visit some of mine so you can show me where they are going to be. Specifically, what new jobs are you going to bring to Adams County, what new jobs are you going to bring to Pike County, Scioto County, Clermont County, and Brown County? You said that the USDA would work together with the EPA on the application of this legislation to our farmers, but what guarantees do we have that the EPA won't trump you? Exactly how are you going to work together and how are you going to guarantee that the USDA will be the representative for our farmers? Do you have any specific details and data to give us before we vote on this bill and not generalities and not assumptions? Or are you just asking us to have faith and hope?

Because you see, sir, I am a farmer and I do believe in that handshake, but before I make that handshake I get all my ducks in a row and all my questions answered. So before I do this handshake, I have to have these questions answered and a bunch of others.

Thank you.

Secretary VILSACK. I will try to respond as best I can in the time I have. There are a number of strategies that we need to take a look at in terms of job growth in rural America, in addition to and apart from this particular bill. You asked what new jobs can be created. I see an opportunity in many parts of the country where we, as I said earlier, link local production with local consumption. To do that, you have to build infrastructure that doesn't necessarily exist in the rural communities today.

Mrs. SCHMIDT. I have to interrupt you because you really need to see my roads so you can understand the kind of infrastructure demands you are going to place.

Secretary VILSACK. And part of what I am talking about is the infrastructure that would allow opportunities for local producers to be able to network together, to have the cooling and refrigeration systems, to have the processing systems that would allow them to basically provide opportunities to institutional purchasers in communities like schools, jails, other groups, colleges, and so forth, to link that local production with local consumption. I think there is opportunity there. I think there are opportunities for construction jobs, there are opportunities for full-time employment, and there are opportunities for additional local markets that reduce the costs of transport and create competition for that farmer's product.

Mrs. SCHMIDT. So then you are saying, sir, that they are not going to be farmers anymore, they are going to be doing something else?

Secretary VILSACK. No. No, they are going to farm. They are actually going to farm.

Mrs. SCHMIDT. But if the production costs go up and you say we are going to offset this by new opportunities and you are saying these new opportunities aren't farm related, then I guess they are not going to farm?

Secretary VILSACK. You asked—I am sorry. I must have misunderstood your question. I thought you were asking for—

Mrs. SCHMIDT. You said there are new opportunities and I want new opportunities for people, but I also want my folks to be able to farm.

Secretary VILSACK. Well—and I agree with you. Ninety percent of farms today—farm families today have off-farm income opportunities. The vast majority of farmers require that for either health care purposes or for income purposes. And if you create jobs in rural areas, then you create opportunities for farmers to supplement, opportunities for farmers to maintain the farm. I think that is a strategy. There are multiple ways in which you can create new jobs. I think there are—there is an opportunity side to this discussion we are having today. I think there are rural development components to this that we haven't had a chance to talk about today, which I would love to be able to talk about, which is in part local consumption, local production. It is in part wealth creation strategies that have been used successfully in parts of the country to create economic opportunity. And so, there are multiple strategies.

Mrs. SCHMIDT. Sir, you keep saying multiple strategies. I just want to go back to my farmers and say, hey, guys, in West Union, here is what we are going to do for you because they are practical like me. They want answers. They don't want, "We are going to build something." They want to know what you are going to build.

Secretary VILSACK. Well, we are going to build refineries that will process agricultural products and waste products into fuel. We are going to create local production and processing facilities that will allow local consumption. We are going to create manufacturing jobs based on renewable energy, depending on the nature of renewable energy that makes sense for your area. In my state it is wind, so therefore we have wind manufacturing jobs. We have turbines being made. We have blades being made. We have parts of the 8,000—

Mrs. SCHMIDT. But, sir, when?

Secretary VILSACK. Well, it is happening right now.

Mrs. SCHMIDT. And so that is good for your area, and how are you going to build it in my area, what are you going to build in my area, and where are you going to get the refinery? We have already got refineries trying to be built now that are not so profitable. So I am really kind of concerned with all of these generalities.

Secretary VILSACK. That is the reason why the President instructed us to get the energy title of the farm bill implemented as quickly as we could, so that resources could be made available to work with your economic development folks in your counties, which I am happy to do, to try to get that done immediately. You all passed a farm bill in which you created multiple options here, and these options are now in the process of being worked through and monies are being made available. It is the reason why we have a

Recovery and Reinvestment Act, and we are using our Rural Development resources to try to create opportunities in communities. That money is going to work to create jobs. So it is happening now. It can happen. And I am happy to work with you and I would be happy—

Mrs. SCHMIDT. We really do need your help, sir. And I know I sound a little skeptical and a little nervous and maybe a little edgy about this. But again, I represent the folks in the Second Congressional District in Ohio and those are my frontline people. And my farmers are hanging on by a thread. With what happened with the energy costs last year, they are already dipping into their savings. They can't afford another tidal wave of an economic catastrophe against them. And they are nervous about this bill and I am nervous with them. And I just want to make sure that whatever we do doesn't dramatically affect us, because whenever you change the paradigm, you create winners and losers. And I don't want the folks in my district to be losers. That might be selfish, but I know I am over time.

Mr. HOLDEN. The chair thanks the gentlewoman.

Mr. Secretary, you have been very generous with your time, and the whole Committee thanks you for that. But, you have a pretty good flavor of the great concerns that have been expressed here on both sides of the aisle. We are very nervous about this bill and we need your help. So, sir, thank you very much for your time today.

Secretary VILSACK. Thank you all.

Mr. HOLDEN. Now I would like to welcome our second panel: Mr. Bob Stallman, President of the American Farm Bureau Federation; Mr. Steve Ruddell, Senior Associate of First Environment; Mr. Earl Garber, Second Vice President of National Association of Conservation Districts from Louisiana; Mr. Fred Yoder, past President and Climate Change Task Force member of the National Association of Corn Growers from Ohio; Mr. Roger Johnson, President of the National Farmers Union; Mr. Ken Nobis, Treasurer of the National Milk Producers Federation from Michigan.

Mr. Stallman, when you are ready, you may begin. I thank all of you for your patience as well.

STATEMENT OF BOB STALLMAN, PRESIDENT, AMERICAN FARM BUREAU FEDERATION; RICE AND CATTLE PRODUCER, COLUMBUS, TX

Mr. STALLMAN. Thank you, Mr. Chairman and Members of the Committee. My name is Bob Stallman. I am a rice and cattle producer from Columbus, Texas and testifying today as President of the American Farm Bureau Federation. We appreciate the invitation to testify.

How Congress addresses climate change will have a tremendous impact on agriculture. We welcome and support the Committee's attention to the needs and concerns of farmers and ranchers. Those concerns are extensive. They include not only mitigating the impact of higher energy costs, but also assuring that wherever and however possible we maximize the role of agriculture producers in any climate policy, including maximizing the opportunities to reduce and sequester carbon.

From an agriculture perspective, there are several changes we believe must be made to the legislation reported from the Energy and Commerce Committee.

First, the legislation must include a strong, robust, statutorily authorized program of agricultural offsets that are explicitly included in the legislative language. Early adopters must be eligible to participate in the program.

Two, the United States Department of Agriculture must be given the primary role in developing, administering, and overseeing this offset program.

And, three, all of the provisions of H.R. 2409, particularly those correcting the controversy over measuring indirect land use and the definition of *biomass*, must be incorporated in any climate change bill.

From a more general policy perspective, H.R. 2454 has two critical flaws that must be remedied.

One, there must be some mechanism included in the bill to assure that other countries, particularly China and India, are part of the global climate solution. If that is not done, our country will be engaging in the economic equivalent of unilateral disarmament.

Two, Congress must not create a hole in America's energy supply. If carbon-based energy is taken out, something else, nuclear for example, must be substituted. We must plug the hole created by the bill or run the risk of Congressionally mandated shortages that will create spikes in energy prices.

The agricultural sector, in particular, is poorly equipped to absorb or pass on such costs. Determining the exact economic impact to agriculture of H.R. 2454 is extraordinarily difficult because the range of variables is enormous, and assumptions play a large role in determining the outcome.

For instance, how much and how quickly will nuclear energy grow? When and how will China and India control their own emissions? Will carbon capture and sequestration come online in 5 years or 15? Will international offsets crowd out domestic offsets? What if nuclear facilities are not approved and constructed as needed or that wind and solar generation does not come online as quickly as projected?

These are just a few of the questions no one today can answer. We would strongly urge Congress not only to ask those questions before the bill is brought to the floor, but to have some reliable analysis of alternate scenarios beyond just the best case, to provide answers before they pass a bill that is to affect every American.

But it appears debate on this bill will occur as early as this month. So I will share with the Committee our best estimates.

In the near term, by about 2020, we project input costs to rise for agriculture by \$5 billion *versus* a continuation of current policy, translating into a nearly \$5 billion reduction in farm income. Corn production would face some of the highest increases in cost, with a rise of nine percent. Reduction in corn plantings would lead to slightly higher corn prices just as movement into soybeans would drive those prices lower.

Overall cash receipts of the crop sector are expected to rise by \$500 to \$600 million, but these revenue increases for crops trans-

late almost directly to increased feed costs for the livestock industry.

These early period costs in industry effects may not seem to be all that large, but the 2020 costs are only the tip of the iceberg. Do not lose sight of the fact this bill will dictate emission caps from now through 2050.

While there are many cost mitigation provisions in this bill for the early years, they eventually run out at about the same time some of the emission caps really begin to bite. In 2050, with the full effects of the cap and the end of the provision of free allowances, we would expect at least a 20 percent reduction in net farm income relative to what would otherwise be the case. And this is probably a best case scenario since we used the figures from EPA's analysis of the Waxman-Markey proposal. Earlier analysis by EPA on the Lieberman-Warner proposal suggests carbon prices would be at least twice as high if these assumptions do not come true. And we can certainly devise a set of assumptions as valid as those used by the EPA that could cut farm income nearly in half.

Remember, too, that some agricultural producers will never benefit from the legislation under any scenario. For example, most fruit and vegetable producers will not qualify for offsets, western ranchers whose operations are heavily dependent on the use of Federal lands for livestock forage also have very limited offset opportunities. Yet these other producers will incur the same increased fuel, fertilizer, and energy costs as their counterparts.

In closing, Mr. Chairman, we remain very concerned about the broad, potential, adverse impacts of cap-and-trade on agriculture. Even though some say agriculture will benefit, that will depend to a great degree on where the producer is located, what he or she grows, and how his or her business model can take advantage of any provisions yet to be incorporated in the legislation. Not every day can a farmer afford to capture methane. It is a capital intensive endeavor. Not every farmer lives in a region where wind turbines are an option. Not every farmer can take advantage of no-till, and not every farmer has the land to set aside to plant trees.

It is absolutely critical that this Committee exercise its prerogatives under the rules of the House and make this legislation as strong as possible for agriculture.

Thank you for the invitation to testify. I look forward to answering your questions.

[The prepared statement of Mr. Stallman follows:]

PREPARED STATEMENT OF BOB STALLMAN, PRESIDENT, AMERICAN FARM BUREAU FEDERATION; RICE AND CATTLE PRODUCER, COLUMBUS, TX

My name is Bob Stallman. I am President of the American Farm Bureau Federation and a rice and cattle producer from Columbus, Texas. I appreciate the invitation to speak to the Committee this afternoon. Farm Bureau is the nation's largest general farm organization, representing producers in every commodity, in every state of the nation as well as Puerto Rico, with over six million member families. The predictions of catastrophic changes in the Earth's climate and what we need to do to forestall that change have generated tremendous debate within Farm Bureau. I am pleased to be able to share our thoughts with the Committee today and to recommend some specific actions the Committee should take.

At the outset, I would like to commend Chairman Collin Peterson (D-Minn.) for holding this hearing. Agriculture will incur higher fuel, fertilizer and energy costs as a result of this legislation. In addition, agriculture and forestry have a very im-

portant and unique role with regard to the development and implementation of any climate change and energy policy. Neither of these factors has been considered in the current bill, and we believe that the only way these issues will be addressed is through action by this Committee.

According to the latest Environmental Protection Agency (EPA) *“Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2005”* updated in 2008, agriculture and forestry emit between six and seven percent of the total greenhouse gases (GHG) emitted in the United States. The same EPA document also indicates that agriculture and forestry have the potential to sequester between 15 and 20 percent of total U.S. emissions. The U.S. Department of Agriculture (USDA) says that currently these two sectors sequester about 11 percent of total emissions, so that these sectors are responsible for reducing more GHG emissions than they emit. It stands to reason that any climate change policy should seek to maximize these contributions from agriculture. The Waxman-Markey bill does not.

Any climate change legislation will impose additional costs on all sectors of the economy and will result in higher fuel, fertilizer and energy costs to farmers and ranchers. Cost increases incurred by utilities and other providers resulting from climate change/energy legislation will ultimately be borne by consumers, including farmers and ranchers. Electricity costs are expected to be $\frac{1}{3}$ higher than would otherwise be the case by 2040. EPA’s own estimates suggest coal costs could rise by more than 100 percent by 2020. Unlike other manufacturers in the economy, agricultural producers have a limited ability to pass along increased costs of production to consumers. It is extremely important that those costs be minimized to the greatest extent possible. Farmers are heavily dependent on the price and availability of inputs such as fertilizer and crop protection products. A viable agriculture sector includes viable fertilizer and chemical industries. The fertilizer industry has already gone through major restructuring due to higher natural gas prices and the closure of many U.S. production facilities. Over half of the nitrogen fertilizer used in the United States is imported. Another rise in natural gas prices as EPA projects would likely result from this legislation could threaten the remaining fertilizer manufacturing facilities in the United States. This would make us even more dependent on foreign fertilizer imports.

Unfortunately, H.R. 2454 fails to recognize the role that agriculture and forestry can play in climate change policy and also fails to mitigate the economic impacts to agriculture resulting from the bill. We identify below areas where the bill is deficient, and how this Committee might address those deficiencies.

1. Legislation should ensure that farmers and ranchers are not put at a competitive disadvantage in international trade.

Agriculture producers rely on foreign markets as sources for their products. Similarly, the international marketplace relies to a large extent on us to produce the food and fiber necessary to feed and clothe the world. The United States exported more than \$100 billion of agricultural products in 2007 and only the global recession pulled us off that number in 2008.

The increased fuel, fertilizer and energy costs that will result from H.R. 2454 will greatly impact the relationship of American producers with the rest of the world. U.S. agriculture is an energy intensive industry that relies to a large extent on international markets.

These increased input costs will put our farmers and ranchers at a competitive disadvantage with producers in other countries, such as China and India, that do not have similar GHG restrictions. Any loss of international markets or resulting loss of production in the United States will encourage production overseas in countries where production methods maybe less efficient than in the United States.

The production of food and fiber in the United States is important both to the U.S. and to the world and any legislation should ensure that our producers are not put at a competitive disadvantage.

The bill provides assurances against adverse impacts from international markets for other sectors of the economy. For example, Title IV of the bill provides assistance for energy intensive manufacturing sectors (such as steel, cement and others) that rely on international trade. Similarly, agriculture is an energy intensive industry that relies on international markets as well. Food is a basic, universal commodity whose availability and price have significant impacts on the world. Measures to level the playing field for international markets should take into consideration agriculture’s concerns.

In addition, any such assurances must be in accordance with World Trade Organization (WTO) principles with respect to trade remedies. Both the transition assistance measures and border adjustment remedies set forth in H.R. 2454 raise concerns about whether they would be in compliance with the WTO.

2. *Any cap-and-trade legislation must contain a robust offset title that fully recognizes the important role that agriculture can play in carbon reduction schemes.*

Title III of the bill would establish a “cap-and-trade” program as the method for implementing carbon reductions. Under this program, certain sectors of the economy would be subject to GHG emission “caps” that would decline annually. Capped entities having difficulty meeting their “cap” obligations would be able to “trade” with other capped entities that have met their cap obligations and have excess emission allowances to “trade.”

Another method for meeting “cap” obligations is for capped entities to contract with uncapped sectors to engage in GHG reduction or sequestration projects to “offset” the GHG emissions that cannot be reduced to their capped obligations. These “offset credits” are valuable to capped entities so long as they are cheaper than purchasing additional emission allowances or retro-fitting facilities to meet cap obligations.

Offsets are an important part of any cap-and-trade program. Because they are only useful to the extent they are cheaper than installing new technology, they serve as a cost containment mechanism for entities trying to meet cap obligations. That means that fewer costs will be passed on to consumers, thus lowering the cost of compliance of a cap-and-trade program.

Agriculture and forestry are particularly well-suited to provide offsets to capped entities. Agriculture and forestry are not capped sectors under the bill, and would therefore be eligible to provide such offsets. There are a number of identified agricultural and livestock practices that have been proven to reduce or sequester GHG. These range from shifts out of conventional to conservation tillage, forest management, nutrition management, even afforestation. In order to achieve the full potential for GHG reductions and sequestration, climate policy should allow farmers and ranchers to adopt these practices to provide offset credits to capped entities. Adoption of these practices also provides other environmental benefits besides carbon reduction or sequestration. These other benefits may include reduced soil erosion, improved wildlife habitat, or increased water quality, to name a few.

H.R. 2454 is totally deficient in this regard.

(a) *The bill should specifically include the full range of agricultural GHG reduction or sequestration projects as eligible offsets.* While the bill currently authorizes the use of offsets, it does not provide that agricultural or forestry offsets will be eligible. Rather, it leaves the selection of eligible offset types to the discretion of EPA. There are no assurances that farmers and ranchers will be allowed to provide offsets or play any role in mitigating GHG emissions under the bill. Agriculture and forestry have the potential to sequester about three times the amount of GHG that they emit, but without a defined role in this bill that potential will be unrealized. EPA analysis of H.R. 2454 shows no role for agricultural soil sequestration practices, casting serious doubt as to whether that type of offset would ever be permitted by EPA.

Failure to set forth an initial list of eligible offset types also has other detrimental implications as well. Without a list of eligible offset types, investors will be reluctant to finance carbon reduction or sequestration projects.

We suggest that a good starting point for such an initial list of eligible offset types is the list in the Committee on Energy and Commerce Report accompanying section 733 of the bill. That language is attached.

(b) *Any legislation must give the USDA the primary role in administering agricultural offsets and other carbon reduction or sequestration projects.* USDA has both the institutional resources and technical expertise necessary to effectively administer any carbon offset allowance program. USDA has developed methods for measuring carbon in different types of soils, and has done significant work in developing methodologies and protocols for different agricultural, forestry and livestock practices relating to carbon reduction and sequestration. USDA also understands the needs of producers and can work effectively with them to develop projects that meet the needs of the cap-and-trade market as well as the needs of producers. USDA also has the resources and the network to work effectively with farmers and ranchers to administer an agricultural offsets program. The bill currently makes no provision at all for USDA. Instead, the bill leaves administration of the offsets title entirely to EPA, including total discretion as to what types of offsets will be eligible. A recent article in the *Des Moines Register* underscores why this is a concern. In 2005, EPA estimated that farm practices and forestry programs could reduce carbon emissions by about 700 million metric tons annually. Retaining crop residue in the soil would account for about 25 percent of that reduction. Under that scenario, credits were estimated to be

worth about \$15 a ton. EPA, after looking closer at the House Bill now believes that the carbon credits from agriculture and forestry likely won't exceed 300 million tons until after 2040. And then, most, if not all, of the offsets would come from planting and preserving forests, not through agriculture. Again, due largely to U.S. agriculture's success in this area, the EPA sees very little need for the scope of credits to farmers that would be needed to offset higher operating expenses. We need policy to quantify and reward the vast amount of action and investment our farmers have already made to retain carbon in our fields and USDA should have that responsibility.

The role for USDA must be spelled out in legislation. Recent statements from Secretary of Agriculture Tom Vilsack indicate that USDA will not assert its jurisdiction or authority over agricultural offsets but will instead leave offset administration to EPA. Unless this Committee inserts a provision giving USDA a role over agricultural offsets, jurisdiction will stay with EPA.

The Energy and Commerce Committee Report language recognizes the need for USDA involvement in the offset process, stating: "The Committee strongly encourages the Administrator to consult closely with the Secretary of Agriculture on all elements of the offsets program related to agricultural and forestry practices." That recognition is important, but it is not sufficient. The USDA role must be spelled out in the bill.

(c) *Any legislation must allow early adoptors to participate in an offsets program.* One of the fundamental flaws of the current offsets title is that it does not allow "early adoptors" to be eligible to participate in the offset program. Many producers have already adopted management practices that reduce or sequester carbon. These producers are generally leaders in the industry who have adopted these practices to improve environmental conditions. Instead of being recognized for their early actions, the bill penalizes them by making them ineligible to provide any offset credits. Innovators should not be penalized simply because they saw the merits of taking these actions before legislation was enacted. By limiting participation only to those who undertake reduction or sequestration after legislation is enacted, the bill creates a perverse incentive to encourage farmers and ranchers to wait until legislation is enacted before adopting carbon reduction or sequestration practices. For those who have adopted such practices and therefore might be ineligible to provide offset credits, the bill creates the perverse incentive of encouraging such producers to cease these practices for a certain period of time and resume them only when they become eligible to provide offsets.

An amendment by Rep. Zack Space (D-Ohio) during the markup in the Energy and Commerce Committee partially addresses the issue by allowing participation by producers who began practices after 2001. Their participation, however, is contingent on approval by EPA for such prior practices. We suggest removal of the language granting EPA the discretion to set a participation date.

We should make it clear that allowing participation by early adoptors does not provide payment for past reductions or sequestrations, but only for future reductions or sequestrations. For example, some scientific studies indicate that soils generally become saturated with carbon after 20 to 30 years. Farmers that have been no-tilling for 20 years, therefore, likely have little or no additional opportunities to sequester carbon from that practice. Farmers who have engaged in the practice for 5 or 10 years likely have opportunities to sequester additional carbon. Allowing their participation to sell offsets would be based on their future sequestration only.

Without allowing these producers to participate in selling future reductions or sequestrations, there is nothing to prevent these producers from releasing the carbon they have stored or stopping the reduction practices they have adopted. Allowing them to participate retains the benefits they have already attained and provides that they will continue such practices.

3. *Offsets do not shield producers from adverse impacts of this legislation.*

Even with a robust agricultural offsets title as indicated above, the bill will not make economic sense for farmers and ranchers. There are several reasons for this.

(a) A number of agricultural sectors will not benefit from offsets. The attractiveness of offsets as a possible revenue stream for producers and a cost containment measure for consumers should not cloud the fact that there are a number of agricultural producers who will not be able to benefit from offsets. As a general farm organization, AFBF represents all commodities. Most fruit and vegetable producers will not qualify for offsets. Western ranchers whose op-

erations are heavily dependent on the use of Federal lands for livestock forage also have very limited offset opportunities. Many areas of the West in general that are coal-dependent are also the areas that have limited offset opportunities. Not all areas of the country are able to productively adopt conservation tillage practices, thus restricting their offset possibilities. Yet, these producers will incur the same increased fuel, fertilizer and energy costs as their counterparts.

(b) Revenue from offsets will only defray a portion of the increased input costs resulting from this bill. The bill was amended to defer auction of emission allowances for a significant portion of the total allocation, a factor that will reduce overall program costs. More free emission allowances also means a lower price of carbon and a lower demand for offsets. As the price of carbon and offsets rise, producer input costs will rise as well. This does not even account for the adverse effects on competition or offset transaction costs that will result from this bill.

Additionally, H.R. 2454 should be modified to incorporate the provisions of H.R. 2409.

We commend Chairman Peterson, Ranking Member Frank Lucas (R-Okla.), and all Members of the Committee who have introduced H.R. 2409. AFBF strongly supports this bill and believes it must be incorporated in any climate change legislation that is considered by Congress.

AFBF has long been a proponent of renewable fuels and the Renewable Fuel Standard (RFS). We believe biofuels are key components to increase our nation's energy security.

The RFS is an important step in recognizing that biofuels like ethanol and biodiesel are clean burning transportation fuels that lesson our dependence on foreign oil and revitalize rural America.

AFBF has strong concerns with the notice of proposed rulemaking offered by EPA. The RFS passed in the Energy Independence and Security Act of 2007 (EISA) requires new biofuels to emit from 20 to 60 percent fewer GHG emissions than gasoline to be eligible for the RFS program.

The controversy stems from EPA's inclusion of modeled, projected indirect land use impacts in its scoring of the GHG emissions from biofuel production and use. This action could penalize the ethanol and soy biodiesel industry if, in using those fuels, blenders cannot get credit toward meeting the RFS. Essentially, the EPA has determined that the production of ethanol in the United States is forcing land use changes in foreign countries to destroy their valuable rain forests to produce farm commodities to make up for reduced exports of these commodities from the United States. This is simply silly economics and not supported by fact.

Our members have serious concerns about the terms "indirect land use change" and "lifecycle carbon emissions" and how these concepts would be measured and implemented. We do not believe there is a reliable way to measure or accurately predict how the production of biofuels will affect land use change in other countries. For our farmers, the market dictates which crops will be planted and where those crops will be grown. If there is sufficient demand for a crop, farmers will produce it. If the market persists, greater efficiency will follow.

Improved plant varieties, new technologies, and more efficient agricultural practices have produced greater crop yields of higher quality. It is unrealistic to think that anyone can predict how agriculture will evolve in the future based on the single variable of biofuels utilization. New and uncertain science to predict international land use change has no place in Federal regulations.

We are also concerned that biofuels are the only transportation fuel being measured for GHG reduction. If we are going to accurately measure GHG reductions we need to measure the land use change for petroleum. This will allow us to compare GHG emissions from all transportation fuels.

H.R. 2409, The Renewable Fuel Standard Improvement Act, provides a clear way to fix this problem and clarify the way GHG's emissions are measured.

The RFS included in the Energy Independence and Security Act of 2007 also did not include all forms of forest biomass, and we believe that is unfortunate. Under the standard, the only forest biomass considered renewable is that from "actively managed tree plantations."

The reason for such a narrow definition is unclear, but the result is many family farm forest owners will be precluded from active participation. If the purpose of the standard is to increase the use of forest biomass, the definition should be as broad as possible to encourage its use.

Farm Bureau supports changing the definition of renewable biomass to include all forms of forest biomass. It is important the legislation be as inclusive as possible regarding energy feedstocks and methods. We support the definition of renewable

biomass included in the farm bill and in H.R. 2409, The Renewable Fuel Standard Improvement Act.

From a broader perspective, Farm Bureau's goal has been to contribute positively to the debate over climate change. We certainly hope this Committee will do the same, and I would now like to touch on more general aspects of the debate, and the pending bill, with the hopes that some of these problems can be addressed before the measure reaches the House floor.

Farm Bureau has set out a number of pillars that we have shared with the Committee. I would like to emphasize a few of those here today because they are central to how a climate change program will affect agriculture.

1. All the clamor and excitement over this issue has focused on claims of upcoming catastrophic events—rising sea levels, horrific weather disasters, furious hurricanes, melting polar ice, demise of certain species and migration of people from some territories to others. The list goes on.

But no one can tell if the bill reported from the Energy & Commerce Committee will actually fix those problems. So before we rush to impose constraints on our economy that may or may not work, there ought to be some way of measuring whether the benefits in the bill at least roughly equal the costs. In our estimation, the legislation as it stands today falls far short of that standard.

2. Everyone acknowledges that this is a global issue. The United States cannot solve it on its own. We all support leadership by the United States, but we should not engage in the economic equivalent of unilateral disarmament. There must be some mechanism in the legislation to assure that other countries, such as China and India, also are part of the solution.

3. If in fact there is the political will finally to wean our economy off the use of fossil fuels, then let's go about the real business of coming up with an energy plan for America. That means we must "plug the hole" that will be created when we take carbon-based fuels out of our economy. The legislation must be an honest and straightforward approach. It means a real commitment to nuclear power. It means a realistic assessment of how much solar, geothermal and wind energy can contribute and under a realistic timeline. We cannot have overly optimistic assumptions of when carbon capture and sequestration (CCS) technology will come on line. The bill must be real. In the absence of "plugging the hole," we will see price spikes caused by induced energy supply shortages that will be harmful to our economy.

This last point leads me to a general discussion of how we view the economics of cap-and-trade. I must caution the Committee, however, that it is very difficult to give a precise and accurate economic assessment of H.R. 2454. That is so for several reasons:

1. Nearly all the economic figures surrounding this bill are based on EPA's analysis provided to the Committee back in April;
2. These economic projections are keyed to a specific set of assumptions ranging from unfettered access to nuclear power to unveiling of carbon capture and sequestration technology; and
3. Given that EPA favors the legislation and was directed by Chairman Henry Waxman's (D-Calif.) staff to use certain assumptions, we believe it is safe to say any cost estimates I provide you today are not only minimal but are probably unrealistically optimistic.

Let me give the Committee a flavor for the kind of assumptions that underpin the legislation:

1. EPA in its analysis used assumptions "provided by Committee staff on the use of allowances"¹ that:
 - Increased carbon capture and sequestration bonus allowances;
 - Provided that necessary allowances would be deficit neutral; and
 - All remaining allowances would be returned to households in a lump sum fashion.
2. EPA in its analysis used Committee staff directions on the commercialization of CCS technology. EPA assumed this technology would be affordable and com-

¹EPA Preliminary Analysis of Waxman-Markey Discussion Draft, 4/20/09 available at <http://www.epa.gov/climatechange/economics/economicanalyses.html#wax>, page 10.

mercially available starting in 2014, whereas most other estimates are for 2020 or 2025. None is in place today.

3. EPA in its analysis used previous assumptions by MIT² on the degree to which developing nations, such as China, would engage in similar emissions-reduction policies. For China and India, for example this assumes that these countries (and others in the developing world) “would adopt a policy beginning in 2025 that returns and holds them at year 2015 emissions levels through 2034, and then returns and maintains them at 2000 emissions levels from 2035 to 2050.”

4. Yet EPA notes³ that “While this analysis contains a set of scenarios that cover some of the important uncertainties when modeling the economic impacts of a comprehensive climate policy, there are still remaining uncertainties that could significantly affect the results.”

5. A large share of emissions reductions stem not from the policies in the bill but from reduced GDP as a result of the economic recession, as well as earlier policy changes enacted in the *Energy Independence and Security Act*. The source for these emissions reductions is the latest (2009) Annual Energy Outlook.

Earlier analysis by EPA of the Liberman-Warner proposal looked at the effects on carbon prices and other economic variables if the fundamental assumptions regarding nuclear power and other portfolio mix shifts did not occur. Without that addition of nuclear power generation, carbon prices and associated energy costs almost doubled compared to the earlier base case. It is critical that we understand how sensitive EPA’s analysis of this bill is to these underlying assumptions. Certainly one should know those answers before taking the bill to the floor. In fact, we strongly recommend the Committee require EPA to provide analysis using assumptions similar to those contained in Scenario 7 of their Liberman-Warner proposal study. Because while the caps that will be written into law, the market and power generation structures implied by EPA’s current analysis are just a set of assumptions.

Let me cite just two examples.

In the MIT study mentioned earlier, the authors point out that they “limited nuclear electricity generation to that possible with current capacity on the basis that safety and siting concerns would prevent additional construction. With strong greenhouse gas policy such concerns may be overcome, especially if other major technologies such as carbon capture and storage can not be successfully developed, run into their own set of regulatory concerns, or turn out to be very expensive.”⁴ In other words, a carbon-less world might be so expensive that nuclear energy becomes a viable source of electricity generation. The authors go on to say that the “fate of CCS is the mirror image. With nuclear limited, CCS expands beginning in 2020 to about 18 EJ in 2050. When nuclear is allowed to compete on economic terms, some CCS is viable but it begins losing out to nuclear after 2040, when the CO₂-e price has risen substantially. Coal generation without CCS disappears in either case. These relatively detailed results help illustrate the scale of effort required to meet these policy constraints. There are just over 100 nuclear reactors in the U.S. today, and so a six-fold increase in nuclear generation would require the construction of on the order of 500 additional reactors. If nuclear cannot penetrate the market the scale issue is not avoided but instead is transferred to CCS, requiring siting and construction of about the same number of new CCS plants.”

Those are enormous variables.

The second example I would cite was articulated just a couple of days ago, in a story discussing the Waxman-Markey bill’s allocation of about \$200 billion for CCS technology. Pointing out the almost unprecedented level of money (six times greater than the amount contemplated in legislation considered in the Senate a year ago, according to the author), an article⁵ in the trade press nevertheless quoted an energy researcher as saying CCS may never even materialize.

“At the most optimistic, this bill is the beginning of a revolution. Or it could just be a flash in the pan,” said Kevin Book, managing director at energy research firm ClearView Energy Partners.” said the article. Another expert, Sarah Forbes at World Resources Institute, was quoted as saying she was not sure the funding was enough. Still others pointed out technological and legal issues that have not been answered.

²Assessment of U.S. Cap-and-Trade Proposals, Report No. 146, April 2007.

³Op. cit., page 4.

⁴MIT study, op. cit., page 32.

⁵“Carbon Capture and Storage Moves to Center Stage of cap-and-trade Debate”, *Climate Wire*, June 9, 2009

These are just two examples of the kinds of assumptions that underlie this bill. It is nearly impossible to evaluate exactly how such scenarios will play out, nor does it seem reasonable, given the magnitude of the unknown, that everything will come out just right.

Given these caveats, however, there is no question that the national effort to cap and then further reduce GHG emissions represents a significant restructuring of the nation's economy. While most policy options on the subject to date have not included production agriculture as a capped sector, agriculture would certainly feel the effects of limiting GHG output through the changes in the energy production industry. At the very least there will be increases in energy costs in general, but more specifically the higher costs faced by sectors that provide inputs to production agriculture. As these costs are passed to agriculture, producers certainly will react but are constrained as to the extent to which they may respond.

Taking EPA's estimates of 2020 costs, AFBF projects input costs would rise by \$5 billion *versus* a continuation of current CO₂ policy. This \$5 billion essentially carries forward to a nearly full \$5 billion reduction in farm income. Corn production, with a heavier emphasis on energy-based crop nutrient requirements, would face some of the highest increases in costs with a rise of nine percent. Conversely, soybean producers due to a much smaller reliance on energy-based inputs will only see costs move by five percent. Not surprisingly, this shift in costs is expected to lead to a shift out of corn and into soybean production. Overall, producers are expected to reduce slightly—by half a million acres or so—overall plantings in response to these higher costs.

The reduction in corn plantings discussed above does lead to slightly higher corn prices, just as the movement into soybeans drives those prices lower. Overall cash receipts to the crops sector are expected to rise by \$500 to \$600 million. But these revenue increases for crops translate almost directly to increased feed costs for the livestock industry. As is the case for crops, the livestock sector will require some time to adjust to the new reality, but after a few years, the higher inputs represented by 2020 cost changes suggested by EPA will generate a similar \$500 to \$600 million increase in livestock cash receipts. But feed cost increases are expected to chew through \$400 million of that rise in cash receipts.

But it is critical not to stop in 2020, even though much of the analysis conducted to date tends to focus on these early year effects. As mentioned earlier, the full impact of the bill will not be realized until 2050. Conducting analysis of an industry as dynamic as agriculture for effects more than 40 years in the future is difficult at best, and certainly subject to a great deal of debate. But the fact remains that this legislation is intended to set in law specific targets the economy must meet by the time we get to 2050. It will set rules on how our children and our children's children must be prepared to farm to be in compliance with this bill.

EPA's estimates of how things will look in 2050 under this legislation suggest a substantially different world. For example, the 2020 CO₂ prices estimated by EPA come in at \$22.20 per ton—expressed in 2005 dollars. For 2050, CO₂ prices—again in 2005 dollars—by EPA's estimates are \$95.90 per ton. Consequently, the relatively minor adjustments discussed before for 2020 policy implementation pale in comparison to how the sector will be impacted by 2050.

Extending the same analytical approach used before, we have imposed those higher energy costs on the industry as if they occurred in 2012. Then we looked at the industry behavior under those new conditions.

Production costs under that scenario rise by \$13 to \$14 billion after the initial year's impacts. Here again, acreage shifts occur between commodities, with corn and other energy intensive input crops giving land to less intensive crops, primarily soybeans. Overall, producers shift out of roughly 1.5 million acres. Input costs averaged over the third to fifth year subsequent to the shock rise by \$13 billion, with nearly \$11 billion of that rise deriving from higher fertilizer costs. Feed costs also rise, but in this case by only in the \$725–\$775 million range. Another large adjustment observed under the scenario is a nearly \$4 billion decline in rent paid to non-operator landlords. Overall, farm income is estimated to run \$13 billion lower than would be the case without CO₂ costs in the \$90+ per ton range. Further, consumer spending on food rises by just over \$13 billion.

Moreover, these are not the only shifts in acreage. Another area of concern is the potential for land to shift from farm to forest production and the consequences of such shifts. Some of this acreage will not doubt come from land currently devoted to pasture and forage production and would therefore place even greater limits on the cattle industry. It is also possible we may get some shifts out of crop production into trees if CO₂ prices were to rise sufficiently. Much more work is needed to understand the full effects of these potential land use adjustments.

Also remaining to be done is further work on potential income streams from off-sets. But critical to this work are the rules Congress will write that will affect those income streams. Recent analysis by EPA suggests that there are no revenues to return to the sector from agricultural land use. Much of the view being that land management practices have already adjusted sufficiently to the point that there is little additional carbon sequestration left to be gained by shifts to no-till or other conservation tillage practices in the future. In other words, past good actions by the industry are to be acknowledged with a thank you, and the sector is just being asked to accept higher input costs with aplomb.

There is also a potential revenue stream available by sales of crop residue as an input into the renewable electricity standard. Studies around this issue suggest the greatest contributor to this energy source will be corn stover, with wood chips and other forest management residue also providing a major source.

Removing stover from the field will, however, also remove some crop nutrients from the same field. Consequently, taking that residue off the field will require producers to increase their fertilization rates to keep up the same level of productivity. As has been pointed out more than once, fertilizer—especially energy intensive fertilizers—are not cheap and are expected to rise even more due to this legislation.

Some studies suggest corn stover at current fertilizer and fuel costs will need to receive at least \$60 per ton in order to justify bringing the product to the field edge.

In conclusion, Mr. Chairman, we remain very concerned about the broad potential adverse impacts of cap-and-trade on agriculture. Even though some say agriculture will benefit, that will depend to a great degree on where the producer is located, what he or she grows, and how his or her business model can take advantage of any provisions in the legislation. Not every dairy farmer can afford to capture methane—it is a capital intensive endeavor. Not every farmer lives in a region where wind turbines are an option. Not every farmer can take advantage of no-till. Not every farmer has the land to set aside to plant trees.

Yet, every farmer has production costs to meet. Nearly all of us rely on fertilizer. We all drive tractors. We know our costs will rise. And frankly, we are very concerned about the impact of this legislation on our livelihood.

I appreciate this opportunity to offer these comments to the Committee and will be pleased to respond to any questions.

ATTACHMENT

Energy and Commerce Committee Report Language

Section 733, Eligible Project Types: Requires the Administrator to establish a list of offset project types that are eligible under the program, taking into account the recommendations of the Offsets Integrity Advisory Board. Provides guidelines for establishing and updating the list.

In implementing this provision, the Committee expects the Administrator to fully evaluate each of the following categories of activities for potential inclusion as eligible offset project types:

- (1) agricultural, grassland, and rangeland sequestration and management practices, including—
 - (A) altered tillage practices;
 - (B) winter cover cropping, diversified rotations and other means to increase biomass returned to soil in lieu of planting followed by fallowing;
 - (C) conversion of cropland to rangeland or grassland, on the condition that the land has been in non-forest use for at least 10 years before the date of initiation of the project;
 - (D) reduction of nitrogen use or increase in nitrogen use efficiency;
 - (E) reduction in the frequency and duration of flooding of rice paddies;
 - (F) reduction in carbon emissions from organic soils;
 - (G) reduction in greenhouse gas emissions from manure and effluent; and
 - (H) reduction in greenhouse gas emissions due to changes in animal management practices, including dietary modifications;
- (2) changes in carbon stocks attributed to land use change and forestry activities, including—
 - (A) afforestation or reforestation of acreage not forested as of January 1, 2007;
 - (B) forest management resulting in an increase in forest carbon stores including but not limited to harvested wood products;
 - (C) management of peatland or wetland;
 - (D) conservation of grassland and forested land;

- (E) improved forest management, including accounting for carbon stored in wood products;
 - (F) reduced deforestation or avoided forest conversion;
 - (G) urban tree-planting and maintenance;
 - (H) agroforestry; and
 - (I) adaptation of plant traits or new technologies that increase sequestration by forests;
- (3) manure management and disposal, including—
- (A) waste aeration; and
 - (B) biogas capture and combustion; and
- (4) non-agriculture and forestry project types, including—
- (A) recycling, reuse, and waste minimization;
 - (B) methane collection and combustion projects at mines;
 - (C) methane collection and combustion projects at landfills;
 - (D) methane collection and combustion projects at natural gas systems;
 - (E) projects to reduce emissions from municipal or industrial wastewater treatment systems;
 - (F) projects that capture and geologically sequester uncapped greenhouse gas emissions with or without enhanced oil or methane recovery in active or depleted oil, carbon dioxide, or natural gas reservoirs; and
 - (G) projects to capture and destroy or avoid emissions of greenhouse gases from industrial sources for which entities do not have compliance obligations under section 722 or other provisions of Title III.

In considering these potential project types, the Administrator must take into account recommendations of the Offsets Integrity Advisory Board.

The Committee expects the Administrator to issue an initial list of offset project types and their associated methodologies under section 734 as expeditiously as practicable, but in no case later than 1 year from the date of enactment. The Administrator should add additional project types, along with their associated methodologies, to the list as expeditiously as practicable, but in no case later than 2 years from the date of enactment. In developing baselines, measurement, and monitoring methodologies for a broad range of offset project types as quickly as possible, EPA should build on its experience in programs such as Natural Gas STAR, Climate Leaders, and the Landfill Methane Outreach Program. The Committee understands that EPA is already working with USDA and DOE on the AgSTAR program to encourage the use of methane recovery from manure digesters and is working on afforestation, reforestation, and forest management protocols under the Climate Leaders program.

The Committee strongly encourages the Administrator to consult closely with the Secretary of Agriculture on all elements of the offsets program related to agricultural and forestry practices.

Mr. BOSWELL [presiding]. Thank you, Mr. Stallman. The chair recognizes Mr. Ruddell.

STATEMENT OF STEVEN RUDELL, SENIOR ASSOCIATE, FIRST ENVIRONMENT, WASHINGTON, D.C.

Mr. RUDELL. Chairman Peterson, Ranking Member Lucas, Members of the Committee, thank you for the opportunity to appear before you today to discuss pending climate legislation, particularly the role of our nation's forests in this legislation. I am a professional forester and currently lead First Environment's environmental markets consulting and verification services, including biocarbon. First Environment is an American National Standards Institute accredited company that conducts greenhouse gas and offset project validations and verifications for voluntary market programs like the Climate Registry, the Voluntary Carbon Standard, the Climate Action Reserve and the Chicago Climate Exchange.

Regarding the role of forests in mitigating climate change, a primary goal in a U.S. climate bill should be to keep our forests as

forests. U.S. climate legislation must support policies and programs that provide incentives for private landowners to manage their lands for increasing carbon sequestration and storage, to avoid conversion to other land uses, to encourage sustainable forestry practices, and to support the complementary relationships between forest carbon markets and other forest ecosystem service markets that will evolve.

I would like to spend most of my time today discussing the opportunities for forests to play a role in carbon offset markets. Recent EPA estimates of the Waxman-Markey climate bill point out that forests mostly improved forest management activities, are likely to produce 81 percent of offsets, equating to roughly 290 million tons of carbon annually.

However, while forests have this tremendous potential, this can only be tapped if the rules for their participation in these markets are workable. Unfortunately, my read of the current legislation is that there is a lack of clarity in how the EPA might interpret the legislation, and there is no clear recognition that EPA will develop the opportunity for forests to participate in offset markets. I believe this must be improved to give the needed market signals and reassurance that forests will be part of any emissions reduction scheme.

With this in mind, I offer six suggestions for your consideration as you work to improve this legislation.

First, ensure that all forests, private forests, can participate. U.S. legislation must provide incentives equitably so that both small and large forests can participate in a future forest carbon offsets market.

Second, ensure a strong USDA role. This Committee made it clear in the 2008 Farm Bill that USDA would take a leading role in establishing carbon offset rules with the establishment of the Office of Ecosystem Services and Markets, but more urgent is that the process of developing forest carbon standards begins moving forward today. This process will take at least 24 months, and markets are waiting now for clear signals.

Third, clearly recognize forest project types. Provide clear direction to EPA to develop offset project rules for forest projects, including afforestation, reforestation, avoided deforestation, and improved forest management with appropriate crediting for wood products.

Fourth, recognize and reward early action. Early action taken to develop and trade offset projects in the current voluntary markets must not be ignored. Forest landowners and forest carbon investors need to know that their past efforts to mitigate climate change will be recognized.

Fifth, environmental integrity standards must be workable. Standards such as baselines, additionality leakage, and permanence must all be workable. Unfortunately, my reading of the current legislation is that there is a lack of clarity as to whether these standards will work for landowners.

And sixth, third-party verification will ensure program integrity. Third-party verification conducted by verifiers accredited by the American National Standards Institute will provide Congress with

assurances that offset project emission reductions have integrity and credibility.

In closing, achieving a balance of environmental integrity and economic viability within forest offset project rules is critical. I address some of these in my written testimony. These are issues that make offset projects workable but are probably not detailed—the details don't need to be worked out in this legislation.

Thank you again for the opportunity to come before you today, and I am happy to answer questions that you may have.

[The prepared statement of Mr. Ruddell follows:]

PREPARED STATEMENT OF STEVEN RUDDELL, SENIOR ASSOCIATE, FIRST ENVIRONMENT, WASHINGTON, D.C.

Chairman Peterson, Ranking Member Lucas, Members of the Committee thank you for the opportunity to appear before you today to discuss pending climate legislation and particularly the role of the nation's forests in this legislation.

I currently lead First Environment's environmental markets consulting and verification services, including bio-carbon, water, and biodiversity markets. First Environment is an American National Standards Institute (ANSI) accredited verification company that conducts greenhouse gas and offset project verifications for voluntary market programs like The Climate Registry, the Voluntary Carbon Standard, and the Chicago Climate Exchange.

I am a professional forester with 30 years of forest resource management, forest policy, forest economic and marketing research, and consulting experience. The past 10 have included consulting with clients and assessing opportunities on investments in forest conservation and sustainability initiatives using market-based mechanisms, including carbon asset management strategies for trading carbon offset projects, and sustainable forest management standards.

Within North and South America I have conducted forest carbon consulting and verification for integrated forest management companies, non-industrial forest forestland owners, tribal timberlands, NGO's, aggregators, conservation organizations, and institutional investors. My international experience includes Brazil, Peru, Uruguay, Indonesia, and the Central African Republic.

Since 2003 I have been involved with the development and/or review of several forest carbon offset project rules including the Chicago Climate Exchange, the Community, Climate, and Biodiversity Alliance, the California Forestry Protocols, and the Voluntary Carbon Standard. Currently I serve as vice-chair of the U.S./Canadian binational forest carbon standards committee to develop compliance quality forest offset standards under the ANSI and SCC national standards bodies. As a member of the Society of American Foresters, I recently served on its Climate Change Task Force that produced a publication on the roles of managed forests in climate mitigation. I understand that this publication has already been submitted to the Members of this Committee, this document was printed in Serial No. 111-16, *Hearing To Review the Future of Our Nation's Forests*, p. 82.

Forests play a significant role in mitigating the impacts of climate change, through active sequestration of atmospheric CO₂. Forests are one of the largest natural carbon sinks for controlling our climate.

Today, according the U.S. Environmental Protection Agency, forests and agriculture sequester and store roughly 12.5 percent of our annual emissions, serving as a net sink of carbon. What's more important is that EPA also estimates, with the proper incentives in place, forests and agriculture in the U.S. alone sequester and store as much as 25% of our annual carbon emissions. This is important—the nation's forests and agriculture lands can offer 25% of the solution to the challenge of climate change.

Regarding the role of forests in mitigating climate change, a primary goal in a U.S. climate bill should be to **keep our forests as forests**. If we look long-term, as what the nation will need to help deal with changing climate, forests are a key element because of their carbon sequestration and storage potential. Because of this, U.S. climate legislation must support polices and programs that provide incentives for private landowners to:

- (1) manage their lands for increasing carbon sequestration and storage,
- (2) avoid conversion to other land uses,

- (3) encourage sustainable forestry practices that have transformed public and private forestry in the U.S., and
- (4) support the complementary relationships between forest carbon offset markets and the provision of forest ecosystem services.

Climate legislation, and particularly a cap-and-trade system, which I'll focus on given the current trend in the debate, can provide these incentives through two key opportunities. First, the legislation can allow for the creation and proliferation of carbon offset markets, where forest owners can sell their forest carbon sequestration and storage value to direct emitters to help offset their emissions. Second, the legislation can provide other incentives, such as payments for certain forestry practices that can reward these types of activities and also result in emissions reductions. The latter is typically talked about as emissions reductions outside the cap, meaning this would provide additional reductions in addition to those required by the cap.

I should note that First Environment is part of a national coalition called the Forest Climate Working Group, which represents a diverse set of interests including environmental organizations, forest owners, and offset project developers. This Working Group, developed under the leadership of the American Forest Foundation and The Trust for Public Lands, has come together around these main themes as well, and all agree about the tremendous role that forests play in mitigating climate change. Attached to my testimony is the platform of this coalition, including recommendations for climate legislation.

I'd like to spend most of my time today discussing the opportunities for forests to play a role in carbon offset markets. Recent EPA estimates of the Waxman-Markey Climate bill, H.R. 2454, point out that forests, mostly improved forest management activities, are likely to produce roughly 81 percent of offsets, equating to roughly 290 million tons of carbon annually. Please note that the EPA analysis does not indicate that the full 1 billion in domestic offsets allowed under the legislation will even be filled.

However, while forests have this tremendous potential, this can only be tapped if the rules for their participation in these markets are workable. Unfortunately, my read of the current legislation is that there is a tremendous lack of clarity in how the EPA might interpret the legislation, and there is no clear recognition that EPA will even develop the opportunity for forests to play in offset markets. In my opinion, this must be improved, to give the needed market signals and reassurance that forests will be part of any emission reduction scheme and that the rules will be workable.

With this in mind, I offer the following suggestions for your consideration as you work to improve this legislation:

- **All private forests should be able to participate.** Any U.S. legislation must provide these incentives equitably so that both small and large forests can participate in a future forest carbon offsets market.
- **Strong USDA role.** This Committee made it clear in the 2008 Farm Bill, that USDA would take a leading role in establishing carbon offset project emission reduction rules with the establishment of the Office of Ecosystem Services and Markets. A U.S. climate bill must recognize the co-equal role of the USDA with the EPA for administering an emissions trading system. But more urgent is that the process of developing forest carbon standards begins moving forward today. This process will take at least 24 months, and markets are waiting now for clear signals.
- **Clear Recognition of forest project types.** The current legislation gives EPA tremendous discretion on the development of project types. To provide assurance to the market and to those who want to participate, and to ensure timely development and implementation of offset project rules, its critical the legislation provide clear direction to EPA to develop offset project rules for forests projects including afforestation, reforestation, improved forest management with appropriate crediting for wood products, and avoided deforestation. With a strong USDA role in offset rule development, this issue would not be as big of a concern, given their expertise in forestry.
- **Recognize and reward early action.** Early action taken to develop and trade offset projects in the current voluntary markets must not be ignored. Forest landowners and forest carbon investors need to know that their efforts to mitigate climate change will be recognized, when their actions over the past few years were taken in a very risky financial environment and in the absence of clear Federal guidance and leadership.
- **Environmental integrity standards must be workable for forest.** Again, if we focus on the primary goal of keeping forests as forests, providing an eco-

conomic reason for landowners to keep their land in trees, we must ensure that market opportunities create this economic reason and ensure broad forest participation. Standards such as baselines, additionally, leakage, and permanence, must all be workable. Unfortunately, my read of the current legislation is that there is a complete lack of clarity as to whether these standards will work for landowners.

- **Third party verification will ensure program integrity.** Third party verification conducted by verifiers accredited by national standards setting bodies, such as ANSI, to internationally approved standards, (ISO 14065 standard), will provide Congress with assurances that offset project emission reductions traded within an emissions trading system have integrity.

In addition to carbon offset market opportunities for forests, climate legislation can also set up a system for providing incentive payments for forest owners to sequester and store carbon. This is typically discussed as emissions reductions that are achieved in addition to reduction required under the cap, and are thus required to meet “less stringent” tests of environmental integrity as compared with offsets. This can be done through tools that this Committee is very familiar with, such as conservation-style programs in the farm bill, that reward landowners, on a per-acre basis for undertaking activities. Previous legislation has set aside emissions allowances to pay for this type of program. Unfortunately, the current legislation sets aside five percent of allowances, roughly \$5 billion, for international forestry activities but does not provide any resources for projects here in the U.S. This should be corrected.

What’s really exciting is we have the technologies and expertise to undertake these activities today. Professional foresters know how to measure, monitor, and report carbon sequestration and storage. We know how to apply silvicultural practices to accomplish land management objectives that provide for forest products, biodiversity, clean water, AND carbon benefits. We know how to use growth and yield models to make better decisions for managing forest assets.

I’ve been involved in a number of forest offset projects and know that we can make these projects work both economically for landowner and environmentally to ensure the integrity of the emissions reductions.

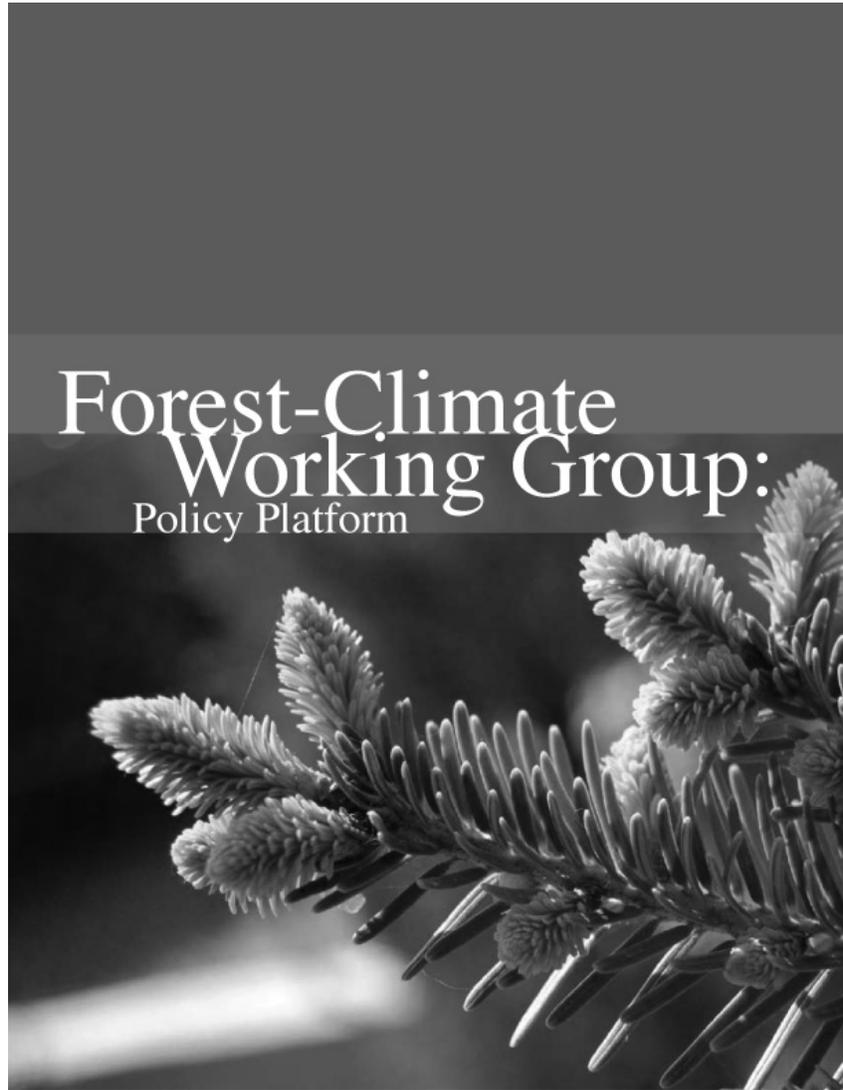
Achieving this balance of environmental integrity and economic viability within forest offset project rules is critical. I would like to highlight some ways that projects can deal with these issues, in my experience. These are issues that make offset projects workable but are probably not details that need to be worked out in legislation.

1. **Contracts can deal with risks of reversals.** Forest offset projects are of course at risk of “reversal” when a disaster strikes like a wildfire or hurricane or if a landowner intentionally modifies their land use. Most contracts can deal with this issue, by establishing credit periods and monitoring periods within project contracts that allow landowners to participate while assigning the risk of reversals in ways that can ensure a permanent climate mitigation benefit.
2. **Forest offset project length and offset credit lengths do not need to be the same.** A forest owner may only be willing to commit to his or her carbon activities for a set period of time, say 20 years, however to ensure true emissions reductions, carbon reductions should be “permanent.” So how do we make this work, so forest owners can and want to participate in markets? Offset credits can be required to meet a test of permanence, but can meet this test with multiple offset projects.
3. **Insuring the risk of reversals is essential.** Legislation must consider the need of promoting the development of third party institutions, such as aggregators, that will insure the risk of reversals and can help reduce the transaction costs of projects with economies of scale.
4. **Baselines must be workable for varying project types.** Baselines, meaning the starting point at which increasing or decreases in carbon are measured against, are critically important and can make or break opportunities for forests to participate. Achieving the primary goal of keeping forests as forests requires that methods for setting baselines need to be matched to the project type. Active forest management and afforestation project types should not necessarily require the same method for setting baselines. In the end, these baselines must be verifiable.
5. **Environmental co-benefits should be rewarded.** Most forest projects will produce environmental co-benefits like clean water and air and biodiversity. Carbon registries can make project documents available so that sellers can demonstrate to buyers the biodiversity and clean water co-benefits provided by a

project. Currently, in voluntary markets, buyers are willing to pay more for forest projects that provide a rich set of co-benefits; this premium should be continued under a compliance market.

The climate legislation before you has the potential to ensure that forested ecosystems are maintained and enhanced in the U.S. If the right incentives are not put in place, forests may be left out of the system and we run the risk of losing the tremendous climate mitigation tool we now have. As the legislation is developed, I urge this Committee and Congress to continue to emphasize a primary goal of keeping forests as forests, and ensuring carbon markets and other incentives in the legislation work towards this primary goal, structuring rules to best provide revenue streams to forest owners to continue providing these climate mitigation benefits.

Again, thank you for the opportunity to come before you today. I'm happy to answer any questions you may have.





Endorsing Organizations

American Bird Conservancy
American Forest & Paper Association
American Forest Foundation
American Forests
C2I, LLC
California Forestry Association
Council of Western State Foresters
Defenders of Wildlife
Environmental Defense Fund
Forest Guild
Hardwood Federation
Maine Forest Service
Manomet Center for Conservation Sciences
MWW MeadWestvaco
National Alliance of Forest Owners
National Association of Conservation Districts
National Association of State Foresters
National Association of University Forest Resource Programs
National Hardwood Lumber Association
National Wildlife Federation
New Forests
Pinchot Institute for Conservation
Plum Creek
Society of American Foresters
The Trust for Public Land
The Wilderness Society
Western Pennsylvania Conservancy
Weyerhaeuser Company
Wildlife Mississippi

U.S. Forests Offer Cost-Effective Climate Mitigation

U.S. forests must play a central role in our national climate strategy. America's forests and forest products annually sequester and store 10 percent of all U.S. carbon emissions—an essential contribution toward mitigating climate change. To secure this carbon sequestration and storage capacity, we must support policies and programs that keep our forests as forests by slowing their conversion to non-forest uses. This will ensure that our forest base can sustain its climate mitigation role. We must also enhance our forests' sequestration capacity by providing offset credits and other incentives for private landowners to manage their lands for increased carbon sequestration and storage. Expert studies have shown that forest carbon offsets can help achieve our national emissions reduction goals in a cost-effective manner by lowering compliance costs for utilities and other covered entities under a cap and trade system.

Forests Must Adapt to Changing Climate

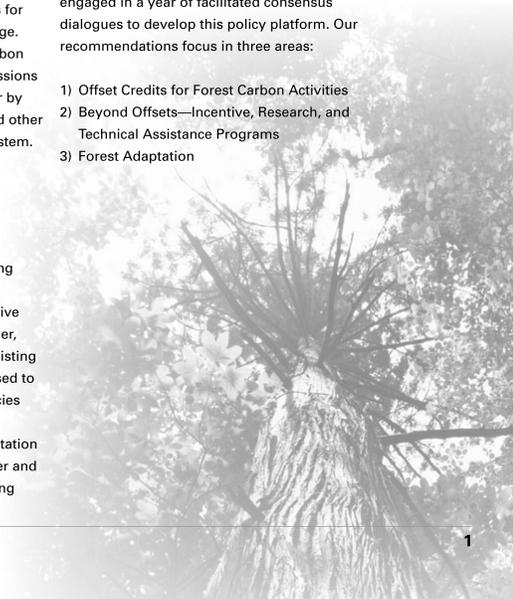
Forests face new stresses from accelerating climate change, including shifting forest systems and increased threats from invasive species, pests, pathogens, extreme weather, and wildfire. We must adequately fund existing planning and policy tools that could be used to help private landowners and public agencies effectively address forest adaptation to a changing climate. Addressing forest adaptation will sustain our forests' ability to sequester and store carbon. Equally important, addressing

forest adaptation will maintain other forest-based ecosystem services potentially at risk from climate change, including public drinking water supplies, forest products, wildlife habitat, and recreation opportunities.

Developing a Policy Response

The Forest-Climate Working Group (FCWG) is a broad and diverse coalition of forest stakeholders formed to develop consensus recommendations for U.S. forest components of federal climate legislation. The participants in the Forest-Climate Working Group—landowner, industry, conservation, wildlife, carbon finance, and forestry organizations—have engaged in a year of facilitated consensus dialogues to develop this policy platform. Our recommendations focus in three areas:

- 1) Offset Credits for Forest Carbon Activities
- 2) Beyond Offsets—Incentive, Research, and Technical Assistance Programs
- 3) Forest Adaptation





Looking Forward

The Forest-Climate Working Group intends to work closely with Congress and the Obama administration to develop strong forest-climate policy. The recommendations contained in this platform represent our best thinking and understanding to date on these complex and technical topics. We recognize that these recommendations rely on additional details that must be addressed. We will be engaging in further consensus dialogue and policy development to refine these proposals and to produce new ideas for consideration. We plan to advance these ideas as they are developed, and encourage policy makers to seek our expertise on important forest-policy questions as they arise.

Offset Credits for Forest Carbon Activities

The Forest-Climate Working Group recommends that a range of U.S. forest carbon activities should be made eligible for participation in offset markets established by federal climate legislation, provided that they can deliver real, additional, and permanent emissions reductions that are equivalent to the emissions being offset. Eligible U.S. forest carbon activities for offset credits should include afforestation, reforestation, and forest management, with potential for others to be included, such as avoided deforestation. The FCWG also recommends that forest carbon offset markets should be carefully structured to minimize transaction and compliance costs—this will encourage the necessary level of participation from landowners and project developers to reach scale. The detailed recommendations below are designed to shape forest carbon offset markets that deliver both environmental integrity and economic viability.

Environmental Integrity

- **Additional:** Forest projects should be required to meet a carbon additionality test. Methodologies should be developed for determining baselines that are quantifiable and matched to project type.
- **Permanent:** The term “permanent” for forest carbon offsets should mean removal and/or storage of the subject carbon from the atmosphere for at least 100 years. Forest carbon contracts should assign clear obligation for reversals.
- **Quantifiable:** All carbon pools expected to significantly change should be quantified and reported. Carbon pools include live and dead biomass, soils, and harvested wood products. Field measurements and estimates for forest-carbon projects and selected pools should be required to meet a specified benchmark for accuracy, to be reviewed and updated regularly over time using the best available scientific understanding.
- **Verifiable:** Third-party verification of reported amounts of carbon should be completed before they are registered for offset credits.
- **Leakage:** Internal leakage should be documented and addressed, which will usually be accomplished if the appropriate geographic management unit is enrolled. Standardized mechanisms should be developed to account for and address external leakage.
- **Sustainable:** It is important to ensure that forest management implemented as part of forest carbon projects is sustainable. A range of approved methods should be provided

for landowners and project developers to demonstrate sustainability.

- **Equivalent:** Equivalence for forest-carbon offset projects with other offsets will be ensured if key elements of project design, including those detailed above, are adequately addressed.

Economic Viability

- **Market Flexibility:** Allowing market flexibility for landowners and project developers to establish forest carbon contracts of different duration in response to market demand would be appropriate, provided that the environmental integrity of emissions reductions is not compromised. Clear rules should be established for replacing shorter-term credits so that environmental integrity is maintained, and contracts of varying duration should be standardized to allow them to remain fungible in offset markets. Market flexibility should also include a suite of options to enable obligated parties to cover the risk of reversals.
- **Measurement Standards:** A set of standardized tools to help determine which carbon pools will require measurement would mitigate compliance costs for landowners and project developers, and should be developed based on local/regional data. Measurement should not be required for carbon pools nearly certain to have increases.
- **Additionality Determination:** Development of a standardized methodology supported by robust data and tools to enable measurement of additionality would enhance accuracy and increase landowner participation.

- **Co-Benefits:** Forest offset projects can provide valuable co-benefits, including other ecosystem services. Projects should not be required to quantify co-benefits, but voluntary reporting could be advantageous for project developers.

Beyond Offsets—Incentive, Research, and Technical Assistance Programs

Proposals for federal climate legislation have raised the potential for delivering additional incentives for U.S. domestic forest carbon activities beyond offset markets. Proposals have included allowance awards and use of allowance auction proceeds to fund climate-related programs. Participants in the FCWG have not reached agreement on the appropriateness of awarding allowances or auction proceeds outside capped sectors. We do have recommendations on how those revenue streams, if they were made available, should be utilized to broaden incentives for landowners to implement forest carbon projects that contribute toward national emissions reductions. This could include increased opportunities for some project types, such as avoided deforestation, and innovative approaches to incentive program design to increase landowner participation.

- **Flexible Guidelines:** Incentive programs should adopt different project design guidelines than offset markets, as long as they are still limited to supporting forest carbon activities with measurable climate benefits. This enhanced flexibility should be used to incubate innovative forest carbon activities and otherwise increase opportunities for landowners to participate.





- **Categorical Approach:** Incentive programs should explore lowering compliance costs through a categorical approach, with standard carbon benefits assumed for specific practices and incentives provided accordingly.
 - **Reward Co-benefits:** Incentive programs should leverage additional value by using co-benefits to help differentiate among projects that otherwise sequester equivalent amounts of carbon.
 - **Research and Development:** A portion of new funding should be directed to federal forest-climate research programs to help develop improved precision in forest carbon monitoring and to create new measurement tools that will lower transaction costs and increase participation by landowners.
 - **Dedicated Funding:** Any new revenues directed to forest-climate programs (mitigation, adaptation, and research) through federal climate legislation should be placed in a dedicated fund and protected from diversion to other programs and purposes.
- Forest Adaptation**
- The impact of accelerating climate change on forest systems is an additional stressor that should be accounted for in future forest management. Failure to address climate adaptation will likely diminish our forests' mitigation capacity while compromising delivery of other critically important ecosystem services for human and natural communities. The FCWG recommends that if new revenue streams such as allowance awards and auction proceeds were established under federal climate legislation, then natural resources adaptation should receive a portion of those funds for the activities and priorities described below.
- **Stewardship and Conservation Programs:** Maintaining our forests as forests and promoting healthy, resilient forests are essential first-response strategies to address the effects of climate change on forest systems. Existing stewardship and conservation programs offer valuable tools to help private landowners and state and federal agencies to accomplish these goals, and should be adequately funded.
 - **Planning Tools:** State Forest Resource Assessments and Strategies and State Wildlife Action Plans provide near-term opportunities to practice adaptive management for climate adaptation and target early responses to major stressors on forests from climate change. Improved funding and partner contributions will be necessary to identify mitigation and adaptation options in these plans.
 - **Wildlife Habitat:** Encouraging stronger landscape connectivity will be important to support adaptation for some forest species. Appropriate forest management practices can also help increase resiliency of individual species and natural systems at a landscape level.
 - **Adaptation Science:** Scientific uncertainty regarding forest adaptation could be substantially reduced by supporting further research, and by implementing techniques such as the use of expert science panels and rigorous inventory and monitoring systems.

The Forest-Climate Working Group is a broad and diverse coalition of forest stakeholders formed to develop consensus recommendations for U.S. forest components of federal climate legislation. The participants in the Forest-Climate Working Group—landowner, industry, conservation, wildlife, carbon finance, and forestry organizations—have engaged in a year of facilitated consensus dialogues to develop this policy platform.

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Mr. BOSWELL. Thank you. Mr. Garber.

STATEMENT OF EARL GARBER, SECOND VICE PRESIDENT AND CHAIRMAN, LEGISLATIVE COMMITTEE, NATIONAL ASSOCIATION OF CONSERVATION DISTRICTS; PRODUCT SUPPORT SPECIALIST, G&H SEED CO., INC., WASHINGTON, D.C.

Mr. GARBER. Thank you, Mr. Chairman, and good afternoon. My name is Earl Garber, I am the Second Vice President and the Chairman of the Legislative Committee of the National Association of Conservation Districts, better known as NACD. I own a rice, soybean, and hay farming operation in Basile, Louisiana and work as a crop consultant with G&H Seed Company. I have served as a Supervisor with the Acadia Salt and Water Conservation District in southwest Louisiana since 1981. I am pleased to be here today to discuss climate change legislation and the work of several conservation districts across the country that serve as verifiers of carbon-credit contracts.

NACD has always supported locally led conservation and maintaining our member districts' ability to work directly with communities to protect natural resources. We recommend that climate change legislation recognize the contributions of agriculture, forestry, and community conservation efforts to reduce greenhouse gas emissions by a market-based payment for emissions offsets. Building upon our foundation of natural resource protection, we believe that additional gains can be made to sequester carbon and reduce greenhouse gas emissions. However, we must also recognize and reimburse those landowners that have already taken appropriate conservation activities on their land in order to protect the existing valuable carbon stocks that have already been built up. We should not risk losing the conservation efforts, the sequestration of carbon, and the natural resource protections we have put in place today, or penalize the earlier adopters.

Today, several of our members are working with partners participating in carbon sequestration efforts to mitigate greenhouse gas emissions. Conservation districts are a known and trusted resource, assisting landowners to ensure that they understand their climate mitigation contracts and are fulfilling their contractual obligations. Conservation districts in Illinois, Michigan, North Dakota are working as verifiers of the carbon contracts through the Chicago Climate Exchange. Conservation districts in Oklahoma are also verifying under the Oklahoma Carbon Initiative.

The work being done in Illinois is a good example of the work conservation districts are doing to verify carbon sequestration contracts. Landowners sign contracts with aggregators to perform activities that sequester carbon through agriculture and forestry conservation practices. Under current markets such as CCX, producers that enroll land are paid annually at a standardized rate for carbon per acre. The Illinois Association of Conservation Districts serves as a verifier of carbon sequestration contracts for no-till under the CCX. Their work is predominantly in the State of Illinois. Districts undertake contract verification of ten percent of the total acres under contract filed under a specific timeframe, they refer to them as pools, or when these contracts are entered into.

Verification reviews the adherence to the contract requirements and the assurance that conservation practices meet or exceed NRCS technical standards. Verification costs are shared among producers based on the percentage of acreage in the pool. Costs associated with the conservation district's activity for verification will vary depending on the location of the producer and such factors as the size and proximity of tracks of land that are enrolled. Small or more dispersed tracts of land typically incur greater costs than larger contiguous tracts. Average verification costs in states in which conservation districts are involved in carbon trading average \$120 per contract, or they generally charge \$30 per hour plus transportation costs.

NACD believes that a carbon offset program can successfully work if USDA is providing a leadership role and producers undertake carbon sequestration efforts that result in real verifiable carbon offsets. Today verifiers of contracts under the CCX system utilize NRCS practice standards in performing verification. We encourage the continuation of this model under any climate legislation.

Many current farm bill conservation programs such as EQIP, WHIP, CRP promote conservation practices that also provide carbon sequestration benefits. As climate change legislation is developed, it is important to consider the current benefits of these programs and that carbon credits they generate qualify under any cap-and-trade system.

Conservation districts are currently undertaking the role of verifiers under the voluntary markets that exist today. NACD would like to ensure that conservation districts can continue to provide this service under any climate legislation.

I thank you for the opportunity to testify today on behalf of conservation districts across the country.

[The prepared statement of Mr. Garber follows:]

PREPARED STATEMENT OF EARL GARBER, SECOND VICE PRESIDENT AND CHAIRMAN, LEGISLATIVE COMMITTEE, NATIONAL ASSOCIATION OF CONSERVATION DISTRICTS; PRODUCT SUPPORT SPECIALIST, G&H SEED CO., INC., WASHINGTON, D.C.

Good Afternoon. I am Earl Garber, Second Vice President and Legislative Committee Chair for the National Association of Conservation Districts (NACD). I own a rice, soybean and hay farming operation in Basile, Louisiana and work as a crop consultant for G&H Seed Co. I have served as a supervisor of the Acadia Soil and Water Conservation District in southwest Louisiana since 1981. I am pleased to be here today to discuss climate change legislation and the work of several conservation districts across the country that serve as verifiers of carbon credit contracts.

Across the United States, nearly 3,000 conservation districts are helping local people to conserve land, water, forests, wildlife and related natural resources. We share a single mission: to coordinate assistance from all available sources—public and private, local, state and Federal—in an effort to develop locally driven solutions to natural resource concerns. More than 17,000 officials serve in elected or appointed positions on conservation districts' governing boards. Working directly with more than 2.3 million cooperating land managers and local communities nationwide, their efforts touch more than 778 million acres of private land. We support voluntary, incentive based programs that provide a range of options, providing both financial and technical assistance to guide landowners in the adoption of conservation practices, improving soil, air and water quality providing habitat and enhanced land. Practices we know as the cornerstones of good conservation and land stewardship are also practices that increase soil organic content and sequester carbon.

NACD has always supported locally led conservation, and maintaining our member district's ability to work directly with communities to protect natural resources. We recommend that climate change legislation recognize the contributions of agri-

culture, forestry and community conservation efforts to reduce greenhouse gas emissions via market-based payments for emissions offsets.

Agriculture producers that utilize conservation tillage farming practices for row crops sequester atmospheric carbon. Such practices as no-till and strip-till significantly reduce soil disturbance, leaving carbon sequestered by plant material residue that is left in the soil to decay into organic matter. This process leaves carbon in the ground for many years. Grazing and rangeland management can also promote carbon sequestration utilizing the same ecological process. Rangeland grasses, shrubs and forbs place carbon in the soil through natural growth and decay cycles.

Livestock operators can also qualify for carbon credits for the capture of methane. By utilizing manure management practices and methane capture technology such as methane digesters, livestock operations can prevent methane emissions that would have otherwise been emitted to the atmosphere. Captured methane is combusted, and the avoided atmospheric release could be eligible for offset credits. Offset credits for avoided methane emissions are determined by such factors as the baseline manure management system, average livestock population, and methane content of recovered gas.

Forestland owners and managers can utilize forestry BMPs that sequester carbon in plant material. By actively managing forests through sustainable silviculture, thinning and harvesting, continued forest growth is promoted and capacity for carbon storage is increased. Forest carbon credits can also be generated by afforestation projects that create newly forested land.

Building upon our foundation of natural resource protection, we believe that additional gains can be made to sequester carbon and reduce greenhouse gas emissions. However, we must also recognize and reimburse those landowners that have already taken appropriate conservation activities on their land, in order to protect existing valuable carbon stocks. We should not risk losing the conservation efforts, sequestered carbon, and natural resource protections we have in place today or penalize early adopters.

One of the impacts of climate change is shifting crop patterns and growing seasons. These changes can impact growing seasons, water distribution, nutrient distribution and forest and wildfire frequency and intensity, and there is a significant need to assist landowners in adapting their land use and agricultural practices to the changing climate. One of the best mechanisms for assisting landowners is through a Farm Conservation Plan developed by the USDA Natural Resources Conservation Service in cooperation with a locally led conservation district.

Today several of our members are working with partners, participating in carbon sequestration efforts to mitigate greenhouse gas emissions. Conservation Districts are a known and trusted resource to work with landowners to ensure that they understand their climate mitigation contracts and are fulfilling their contractual obligations.

The work being done in Illinois is a good example of the work conservation districts are doing to verify carbon sequestration contracts. Landowners can participate in carbon markets in several ways. Large-scale landowners can participate directly in carbon markets by registering with an offset provider such as the Chicago Climate Exchange (CCX). By CCX's standards, units constituting less than 10,000 metric tons of carbon must be aggregated before becoming eligible for trading. Aggregators establish pools, or an arbitrary time frame over which contracts are accepted. Landowners sign contracts with aggregators to perform carbon sequestering activities through agriculture and forestry conservation practices.

Under current markets such as CCX, producers that enroll lands are paid annually at a standardized rate for carbon per acre and must contract for a minimum of 5 years for conservation tillage, 15 years for sustainable forestry practices and 100 years for harvested wood products. This standardized rate is important so as to not create an adverse incentive to a desirable crop rotations. For example, soybeans would sequester less carbon than corn and the carbon sequestration contract should not influence producers' planting decisions during that typical corn/soy rotation. Payment is made to producers for carbon contracts by the aggregator as credits are sold on the carbon market.

The Illinois Association of Conservation Districts serves as a verifier of carbon sequestration contracts. Verification ensures that eligible conservation practices are in place so that carbon credits are authentic. In properly implemented conservation practices, crop residues from previous years are left on the soil surface, and root systems from previous crops are left to decay in the soil. This process maintains or increases the organic carbon content of the soil. Equipment used to achieve the acceptable results include no-till and strip-till planters; certain drills and air seeders; strip-type fertilizer and manure injectors; and in-row chisels.

Districts undertake contract verification of 10% of the total acres under contract filed during a given pool. Land is inspected to verify that proper management practices are being performed by the landowner that holds the credit. Verification reviews adherence to contract requirements and assurance that conservation practices meet or exceed NRCS technical standards. Rates of carbon sequestration in the U.S. generally range from 0.2 to 0.6 metric tons per acre per year for conservation tillage, grasslands are at a rate around 1.0 metric ton per acre per year, and forestry is generally higher than 1.0 metric ton per acre per year.

Verification costs are shared among producers based on percent of acreage in a pool. The costs associated with a conservation district's activities for verification will vary depending on the location of the producer and such factors as the size and proximity of tracts of land that are enrolled. Smaller, more dispersed tracts of land typically incur greater costs than larger, contiguous tracts. Average verification costs in states in which conservation districts are involved in carbon trading average \$120 per contract or \$30 per hour plus transportation costs. Aggregators and verifiers are also required to manage risk by maintaining liability insurance, a standard practice in financial markets.

Under the CCX, 20% of carbon offsets are placed in a reserve pool to mitigate against factors that might result in accidental release of sequestered carbon such as flooding or other disasters. Upon completion of the contract period, producers can receive credit for offsets placed in reserve.

Conservation districts are well situated to perform verification functions. Landowners often have working relationships from previous conservation work with their local conservation district staff. This trusted relationship, combined with the conservation district's technical expertise and familiarity with NRCS practice standards makes conservation districts a logical local resource for carbon credit verification.

NACD believes that soil carbon sequestration offers one of the better near-term, readily-available, emissions reductions technologies available to society now and can offer income generation to farmers and land managers while providing cost-containment to cap-and-trade policies. We recognize that a carbon offset program must be correctly structured and managed to allow for agriculture producer and forest landowner participation.

USDA should have a primary, leadership role in establishing agriculture and forestry offsets technology and policy. USDA has the field expertise and research capabilities to determine proper sequestration methods and establish appropriate standards for carbon offsets. NRCS worked with CCX in setting up the pilot agricultural carbon offset program and provided the standards for BMP's that also sequester carbon. Today, verifiers under that system utilize NRCS practice standards in performing verification. We encourage continuation of this model under any climate legislation.

Many current farm bill conservation programs such as the Environmental Quality Incentives Program, the Wildlife Habitat Incentives Program and the Conservation Reserve Program promote conservation practices that also provide carbon sequestration benefits. As climate change legislation is developed, it is important to consider the current benefits of these programs and that carbon credits they generate qualify under any cap-and-trade system.

Conservation districts have been working with landowners for the last 70 years to encourage the adoption of conservation practices. While we know that not all conservation practices would be considered an eligible project type for carbon offsets, it is very important that Congress not overlook the important work that has already been undertaken and does not take actions to adversely impact ongoing conservation activities. Early actors that have undertaken soil carbon sequestration, methane capture, *etc.*, must be recognized in any climate legislation. Those participating under voluntary carbon trading programs such as the CCX, must be included in any offset program developed under climate legislation.

Producers and forest landowners that might not be able to participate due to economies of scale should also have an opportunity to participate in a supplemental carbon sequestration program. A supplemental incentives program, funded through allowance awards and run by USDA, will reach beyond what can be accomplished through offset markets.

Climate legislation should include dedicated allowances to support supplemental incentives for U.S. agriculture and forest producers unable to participate in offset markets. This type of program would allow USDA to provide incentives, with payment according to the acreage upon which a given practice is employed and the estimated carbon value of each practice. These incentives should also be used to help fund agreements to avoid conversion of agricultural land and forests.

Continuing research into adaptation techniques and practices must be included in climate legislation. As climate patterns shift, new pests, diseases, cropping patterns,

etc., will be altered in local areas. This impact is significant for agricultural producers but also other local landowners and community members. USDA should continue research in this area to inform local offices about expected changes which impact production. USDA should also engage in adaptation planning with states and local districts with the assistance of local conservation districts.

NACD believes that a carbon offset program can work successfully if USDA is provided a leadership role and producers undertake carbon sequestration efforts that result in real, verifiable carbon reductions. Conservation Districts are currently undertaking the role of verifiers under the voluntary markets that exist today. NACD wants to ensure that conservation districts can continue to provide this service under any climate legislation.

Thank you for the opportunity to testify today on behalf of conservation districts across the country.

Mr. BOSWELL. Thank you. Mr. Yoder, please.

STATEMENT OF FRED YODER, PAST PRESIDENT, NATIONAL CORN GROWERS ASSOCIATION; CORN, SOYBEAN, AND WHEAT GROWER, PLAIN CITY, OH

Mr. YODER. Thank you, Mr. Chairman and distinguished Members of the Committee. I want to thank you for the opportunity to testify today on behalf of the National Corn Growers Association on H.R. 2454.

I applaud the Committee's efforts to focus attention on the important role the agriculture industry has in the area of climate change.

My name is Fred Yoder, and I grow corn, soybeans, and wheat near Plain City, Ohio, and I have been an active participant in climate change discussions for a long time. Last December, I had the opportunity to attend and participate in the United Nations World Climate Conference in Poland, where I was able to discuss and talk to other others about the role of agriculture in reducing greenhouse gas emissions.

I feel strongly that, as Congress moves forward on climate legislation, that agriculture should be considered as a significant part of the broader solution as we evaluate ways to reduce greenhouse gas emissions. Our nation's corn growers can play a major role in a cap-and-trade system through sequestering carbon on agriculture lands. In fact, numerous economic analyses have indicated that a robust offset program will significantly reduce the cost of a cap-and-trade program for consumers.

In the near term, greenhouse gas reductions from livestock and agriculture conservation practices are the easiest and most readily available means of achieving reductions on a meaningful scale. EPA estimates that ag and forestry lands can sequester at least 20 percent of all annual greenhouse gas emissions in the United States.

Given those opportunities, it is critical that any climate change legislation seeks to maximize agriculture's participation and ensure greenhouse gas reductions while sustaining a strong farm economy.

For years, corn growers have adopted conservation practices such as no-till or reduced tillage, which resulted in a net benefit of carbon stored in the soil. In fact, on my own farm, I engage in both no-till and reduced tillage.

For the past 5 years, I have worked with my state association, the Ohio Corn Growers, on a research project with Dr. Rattan Lal of the Ohio State University on soil carbon sequestration research.

As part of our research, we have on-farm plots in six locations with various soil types and their carbon capture capabilities, which there are definitely differences in soil types. This is just one example of the proactive steps our industry has taken.

NCGA has identified several critical elements that are currently lacking with H.R. 2454, and we hope we can address this in this Committee. As many of you are aware, NCGA has expressed our opposition in its current form.

A top priority for the agriculture sector is ensuring that USDA plays a prominent role in developing the standards and administering the program for agricultural offsets. The Department has the institutional resources and technical expertise that is necessary to oversee a program that has the potential to be massive in scope. USDA has a proven record of program implementation and collaboration with their farmers.

The treatment of early actors and the definition of *additionality* are also of the utmost important. Under the Kyoto Protocol, member nations agree to targeted greenhouse gas emission reductions relative to the 1990 levels. Therefore, all the greenhouse gas reductions subsequent to that date would contribute to meeting the goals set out in the international agreement. NCGA feels strongly that agricultural practices that originated after January 1, 1991, should be considered “additional” and contributing to the goals of the treaty.

Now, we are not recommending credits for carbon sequestration that occurred between 1991 and 2009. However, producers who have adopted sequestration practices during that timeframe should not be placed at a disadvantage in competition by being excluded from the compensation for further offsets that occur as a result of their ongoing efforts.

The House Energy and Commerce Committee acknowledged this issue by including language that gives the EPA Administrator discretion for moving the early actors dates back to 2001. However, we believe the language referring to 1991 more accurately reflects the goals of the Kyoto Protocol.

Additionally, an important component of creating a successful cap-and-trade system is ensuring that domestic offsets are not artificially limited. While H.R. 2454 includes 1 billion tons of domestic offsets, we believe the market should be unlimited, since offsets represent real emissions reductions.

In conclusion, let me be clear: Unless this Committee can make the necessary changes to provide assurances that agriculture will have access to a robust offset provision, NCGA has no choice but to oppose this bill.

We thank you for the time that you have given me, and I look forward to your questions. Thank you.

[The prepared statement of Mr. Yoder follows:]

PREPARED STATEMENT FRED YODER, PAST PRESIDENT, NATIONAL CORN GROWERS ASSOCIATION; CORN, SOYBEAN, AND WHEAT GROWER, PLAIN CITY, OH

Chairman Peterson, Ranking Member Lucas and distinguished Members of the Committee, thank you for the opportunity to testify today on behalf of the National Corn Growers Association (NCGA), regarding H.R. 2454, *American Clean Energy and Security Act of 2009*. I applaud the Committee’s efforts to focus attention on

the important role the agriculture industry has in the area of climate change and the issues facing rural America.

The National Corn Growers Association represents more than 35,000 corn farmers from 48 states as well as more than 300,000 farmers who contribute to corn check off programs and 26 affiliated state corn organizations across the country. The mission of NCGA is to create and increase opportunities for corn growers and to enhance corn's profitability and use.

My name is Fred Yoder, and I am a past President of NCGA. I grow corn, soybeans and wheat near Plain City, Ohio and have been an active participant in climate change discussions for many years. In December, I had the opportunity to attend and participate in the United Nations World Climate Conference in Poland where I was able to discuss the role of agriculture in reducing greenhouse gas emissions. In addition to being part of NCGA's efforts, I serve on the boards of numerous ad hoc groups, including the 25x25 Carbon Working Group and the Ag Carbon Market Working Group.

We are pleased that the House Agriculture Committee is actively involved in the climate change negotiations in Congress. Agriculture should be considered a significant part of the broader solution as we evaluate ways to reduce greenhouse gas emissions. Our nation's corn growers should have the opportunity to make significant contributions under a market based cap-and-trade system through sequestering carbon on agriculture lands. In fact, numerous economic analyses have indicated that a robust offset program will significantly reduce the costs of a cap-and-trade program for consumers.

In the near term, greenhouse gas reductions from livestock and agricultural conservation practices are the easiest and most readily available means of reducing greenhouse gas on a meaningful scale. The United States Environmental Protection Agency (EPA) estimates that agricultural and forestry lands can sequester at least 20% of all annual greenhouse gas emissions in the United States.

Further, agricultural producers have the potential to benefit from a properly crafted cap-and-trade program. Given these opportunities, it is critical that any climate change legislation seeks to maximize agriculture's participation and ensure greenhouse gas reductions while also sustaining a strong farm economy.

For years, corn growers along with the rest of the agriculture industry have adopted conservation practices such as no till or reduced tillage, which result in a net benefit of carbon stored in the soil. In fact, on my farm, I engage in both no till and reduced tillage. Also, for the past 5 years, I have worked with my state association, the Ohio Corn Growers, on a research project with Dr. Rattan Lal of Ohio State University on soil carbon sequestration. As part of our efforts, we have on-farm research plots at six different locations to study various soils and their carbon capture capabilities. I have been actively engaged from the beginning in defining the research protocols. This is only one example of the groundbreaking work our industry is undertaking.

NCGA has identified several priorities which I believe are critical elements to the agricultural sector within cap-and-trade legislation. We have worked closely with others in the industry to identify key principles which have been embraced by a broad cross-section of the agriculture community. Unfortunately, very few of these priorities have been addressed by H.R. 2454 as reported out of the House Energy and Commerce Committee. We are hopeful that the House Agriculture Committee can help rectify some of these deficiencies in the legislation.

First, NCGA commends the authors of the legislation for not subjecting the agricultural sector to an emissions cap. We urge Congress to maintain this exemption as the legislation makes its way through the House and Senate. Any efforts to regulate greenhouse gas emissions from America's two million farms and ranches would be costly and burdensome, resulting in limited reduction of greenhouse gas emissions. Our industry accounts for only 7% of emissions in the overall economy. Therefore, it would seem unreasonable to concentrate on regulations for such a small and diffuse industry.

However, tremendous environmental benefit can be achieved by allowing producers to provide low-cost, real and verifiable carbon offsets. Congress should fully recognize the wide range of carbon mitigation or sequestration benefits that agriculture can provide. This could include sequestration of carbon on agricultural lands, reduction of emissions from livestock through dietary improvements and manure management, introduction of nitrogen and other fertilizer efficiency technologies and a variety of other practices.

In addition, agricultural offsets have the ability to significantly lower the cost of a cap-and-trade system while achieving real greenhouse gas emissions. Corn growers and other producers can provide the offsets needed to allow changes in energy production technologies as well as investments in capital and infrastructure to

occur, while providing market liquidity and low-cost emissions reductions to help the market function properly. Furthermore, agricultural offsets could also spur ancillary environmental benefits in the form of clean water, air and better wildlife habitat, while at the same time enhancing the fertility and productivity of the soil resource needed to provide food, feed, fuel and fiber. Farmers have always and will continue to respond enthusiastically to market incentives.

Of course, NCGA is closely monitoring the macro-economic impacts of cap-and-trade legislation to ensure that new policies do not create an unnecessary burden for the nation's agriculture sector. We fully anticipate that the cost of fertilizer, fuel, machinery and other inputs to increase under a cap-and-trade system. Corn growers are subject to the volatility of the commodity markets with little ability to recoup costs associated with escalated input prices. Therefore, to ensure a vibrant U.S. agricultural economy in the long-term and an abundant domestic food supply, Congress should structure a cap-and-trade system that delivers an offsets program where the value exceeds the cost to farmers and ranchers. NCGA's view is that H.R. 2454 currently falls short of this goal since there is little assurance in the legislation that agriculture offsets will be eligible for participation in a trading market.

We believe it is important to provide an initial list of project types that are considered eligible agricultural offsets. Although the House Energy and Commerce Committee provided a list of project types in report language, there are no statutory provisions in H.R. 2454 which would require the development of protocols and standards for agricultural offsets. Both the regulated community and agricultural sector need assurances that agricultural offsets will be available. The regulated community should have confidence that a sufficient quantity of offsets will be available for purchase in order to comply with a mandatory cap. The agricultural sector also needs to have clear direction on project types Congress considers to be eligible in order to assess the full impact of cap-and-trade legislation on our industry. An initial, non-exhaustive list of project types in the legislation is critical to addressing these concerns. Shifting the burden of decision-making to an entity other than Congress generates uncertainty that should be avoided.

Another top priority of our industry under a cap-and-trade system includes the role of the U.S. Department of Agriculture (USDA). NCGA feels that USDA should play a prominent role in developing standards and administering the program for agricultural offsets. The Department has the institutional resources and technical expertise necessary to oversee a program that has the potential to be massive in scope. USDA has a proven record of working with farmers, in addition to studying, modeling and measuring conservation as well as production practices that sequester significant amounts of carbon. USDA should be given adequate flexibility to implement an offset program which allows them to account for new technologies and practices that emerge. This will in turn result in emission reductions from agricultural sources. We understand that EPA would likely serve as the oversight agency, issuing the carbon credits and ensuring the validity of the overall program. However, we feel strongly that USDA should play a key role for the implementation of agricultural offsets.

NCGA also believes that an important component of creating a successful cap-and-trade system is ensuring that domestic offsets are not artificially limited. H.R. 2454 calls for 2 billion tons of offsets, half of which are domestic. While the legislation establishes a fairly robust offset market, current estimates predict that agricultural and forestry lands can help to reduce at least 20% of greenhouse gas emissions in the U.S. on an annual basis. Therefore, we believe it is unwise and would distort the market if this 1 billion ton artificial cap on domestic offsets remains in the bill. The goal should be to remove as much greenhouse gas from the atmosphere as possible. Artificial caps could prevent legitimate carbon sequestration, livestock methane capture, and manure gasification projects from occurring.

Furthermore, NCGA feels that carbon sequestration and greenhouse gas mitigation rates should be based on sound science. There is a large body of scientific data which demonstrates that agricultural soils have the ability to sequester carbon, and technologies are available to effectively measure soil carbon content. In fact, the 2008 Farm Bill included a provision that directs the USDA to develop guidelines and protocols for farmers to participate in a greenhouse gas offsets market. USDA has begun developing a properly constructed, science based model that includes statistically relevant random field measurements to help maximize agriculture's ability to participate in an offsets market. Any new policies should include provisions for the development of future offset standards and revision of existing standards to account for changing technology and information.

It is also important that USDA establish measurement rates for various offset practices at the national or regional level. NCGA believes in a standards-based approach rather than a project-based approach for measuring offsets. Real, verifiable

credits can be achieved without direct measurement of each individual offset project; however, third-party auditing can be employed to ensure the credibility of the system. Meanwhile, a project-based approach would be cost-prohibitive, particularly for smaller farming operations and would prevent many producers from participating in the offsets market. We believe that an acceptable level of accuracy is achievable under a standards-based approach with pre-calculated values based on sound science. This should not preclude the development of new technologies or innovative practices that would require initial field testing or project measuring; however, even these new types of credits should eventually transition to standard protocols and values for ease of adoption.

Concerning the question of permanence, it is important to emphasize the concept of contract duration rather than a literal definition of "permanence." The value of the carbon credit would likely have a strong correlation to the length of the contract. For instance, longer contract periods imply more risk for the seller and should result in a higher price. Policies to address reversals, both intentional and unintentional, will also need to be established. Intentional reversals should be considered a breach of contract and the seller would be held responsible based on the terms of the contract. Unintentional reversals, such as instances of natural disasters or other unforeseen circumstances, could be handled through a reserve pool or perhaps a mechanism similar to crop insurance. The bottom line is that risk must be managed appropriately for both the offset buyer and seller, and in most cases, the emphasis should be placed on contract duration rather than permanence.

An issue that continues to be of utmost importance to NCGA is the treatment of early actors and additionality in a cap-and-trade system. Under the Kyoto Protocol, member nations agreed to targeted greenhouse gas emissions reductions relative to 1990 levels; therefore, all GHG reductions subsequent to that date would contribute to meeting the goals set out in the international agreement. NCGA feels strongly that agricultural practices commenced on or after January 1, 1991, should be considered additional and contributory to meeting the goals of the treaty. We are not recommending credits for carbon sequestration that occurred between 1991 and 2009. However, it is imperative that growers who initiated GHG mitigation practices during that timeframe not be prohibited from participating in a carbon offset market in the future. The House Energy and Commerce Committee acknowledged this issue by including language that gives the EPA Administrator discretion for moving the early actors dates back to 2001; however, we believe that language referencing 1991 more accurately reflects the goals of the Kyoto Protocol.

The agriculture industry is constantly evolving. As technologies and practices improve, farmers are converting to alternative tillage practices such as no-till or ridge-till. They are reducing fertilizer application rates and enhancing crop uptake of fertilizer nutrients. Some livestock producers are able to use methane digesters and invest in covers for manure storage or treatment facilities while others are able to reduce enteric emissions with dietary modifications. Producers who have taken these steps should not be placed at a competitive disadvantage by being excluded from compensation for future offsets that occur as a result of these ongoing efforts.

For example, some of our members have participated in the Chicago Climate Exchange (CCX) for several years. Others have been sequestering carbon through conservation practices outside of a trading market. These early actors should not be penalized for being pioneers in the area of no-till or low-till agriculture. Planting and tillage decisions are made each year, and there is no guarantee that a producer will decide to continue the same practice as the previous season. It is imprudent to eliminate these early actors from the offset market based on this flawed assumption. In fact, even continuous no-till farms, which represent a small percentage of all U.S. acreage, have the capacity to continue to sequester additional carbon for many years in a row. The bottom line is that each and every crop we grow sequesters additional carbon, and policies should recognize this fact. In addition, Congress should not establish policies that offer perverse incentives to producers that have heretofore been sequestering carbon in the soil. Of course, these early actors, including those who had previously participated in CCX or other trading regimes, would need to meet the new standards and contractual obligations under H.R. 2454 ensuring that these ongoing mitigation activities continue into the future.

Last, it is important to note that many practices undertaken to reduce greenhouse gas emissions will provide additional public benefits, such as clean water, wildlife habitat, and reduced soil erosion. Eligible projects in a greenhouse gas offset market should not be excluded from also participating in other markets for environmental services that currently exist or may arise in the future. Allowing producers to "stack" credits will maximize the economic viability of carbon sequestration and manure management projects, ensuring more projects are undertaken and synergies

with other environmental priorities are developed. It is important that new climate initiatives will complement existing conservation programs within the farm bill.

In conclusion, it is our hope that we can continue to work with the House Agriculture Committee to ensure Congress chooses the best path for agriculture and rural America. Finally, corn growers will continue to meet the growing demands of food, feed and fuel in an economical and environmentally responsible manner.

I thank the Committee for its time and look forward to any questions you may have.

Mr. BOSWELL. Thank you.

Mr. Johnson?

STATEMENT OF ROGER JOHNSON, PRESIDENT, NATIONAL FARMERS UNION, WASHINGTON, D.C.

Mr. JOHNSON. Thank you, Mr. Chairman and Members of the Committee, for holding this important hearing. For the record, my name is Roger Johnson, President of the National Farmers Union. We are pleased to be here to testify on this bill, the American Clean Energy and Security Act of 2009.

We think the bill is a good first step for agriculture, in that it does not attempt to regulate agriculture or to cap the emissions from our industry. That is a good thing that they put in the bill. We, however, believe that the legislation also has some very serious deficiencies.

Many of you will recall that approximately 1 month ago I wrote a letter to Chairman Peterson, and it was copied to all Members of this Committee, wherein I again described the position that National Farmers Union has on this climate change legislation.

Some have suggested that that letter suggested that perhaps Farmers Union was just going to roll over and support a bill at the end of the day, regardless of what happened with respect to the "asks" that we had in that letter. Let me assure you that that is not the case.

We in the ag community all feel the same way about the provisions that we think need to be changed in this bill. We will not support this bill if the provisions that we asked for in that letter, that we have repeatedly asked for in front of other committees of this Congress, and to other officials of this Administration, are not provided for.

Specifically, they are, and our policy says this very clearly: We support a national mandatory carbon emission cap-and-trade system with a number of conditions.

The first one: USDA must play a prominent role. We are all saying that. These ag offsets need to be run by the agency that knows something about running them. That is USDA.

Early actors must be recognized. You cannot establish a system whereby you penalize the very people who led us to the position that we are at today. And the bill, as it stands today, does not adequately recognize the early actors.

Third, we don't think that there should be an artificial cap placed on any of the offsets. To the degree that you place a cap on offsets, or you refuse to allow offsets from agriculture to be included, you simply drive the cost of compliance for all of society higher. Further, by applying a cap to offsets, you minimize the income opportunities that might otherwise be available for all of us in agriculture.

Fourth, we think carbon sequestration rates need to be based on science, sound science. There is probably no better entity in the world than USDA when it comes to the scientific expertise associated with how you calculate carbon sequestration rates from different agricultural practices.

And, last, we want these benefits to be stacked, as many others have talked about before.

So I hope that this position is very clear.

Now, third, let me say that we do believe that the science is pretty compelling that greenhouse gases and man's impact on their releases are changing this Earth. Much of the rest of the world has come to this same conclusion.

I believe that the U.S. position would be strongly served—would be the most strongest served if, at the end of this year, prior to our negotiators going to Copenhagen, the Congress has acted on, at least in one House, a bill and passed that bill.

I believe that that bill must contain the provisions we have asked for, for agriculture, or it is not just those of us in this country and in this industry that will be harmed, it will be agriculture around the world.

That, having a bill passed, I suspect is why you see so much pressure to get this bill through the House of Representatives. It is important for us, as we re-exert our leadership in the rest of the world, that we do that. And, you heard the Secretary make that case very compellingly earlier today.

So, with that, Mr. Chairman, Members of the Committee, I do have a couple of very quick slides. Farmers Union has been one of the—is, in fact, the leading aggregator in the carbon sequestration game with the CCX. And there are some slides in the testimony that show some of the different areas of the country by practice: no-till practices, permanent grassland practices, sustainable rangeland practices, *et cetera*.

The process is very simple. This screen simply shows what the farmer can pull up on a computer and see in terms of what he may or may not get by signing up for this program. It is a simple one screen, put in a few numbers, and you end up finding out what it is going to pay you.

This second screen actually shows you a screen print from a computer that is the tool that a farmer uses to sign up for the program. You simply pull up the screen, you plug in your data all on one page. At the end of this process, you simply hit print, it will print out a contract, you sign the contract, send it in, you got a deal.

So the process is very streamlined. The process is something that we think should be emulated by adopting these sorts of provisions in this bill.

With that, Mr. Chairman, I am sorry I have gone over my time. I thank you for your attention.

[The prepared statement of Mr. Johnson follows:]

PREPARED STATEMENT ROGER JOHNSON, PRESIDENT, NATIONAL FARMERS UNION,
WASHINGTON, D.C.

Chairman Peterson, Ranking Member Lucas, and Members of the Committee, thank you for the opportunity to testify today. My name is Roger Johnson, and I am President of National Farmers Union (NFU). The organization was founded in 1902 in Point, Texas, to help the family farmer address profitability issues and mo-

nopolistic practices. Today, with a membership of 250,000 farm and ranch families, NFU continues its original mission to protect and enhance the economic well-being and quality of life for family farmers, ranchers and their rural communities. We believe that farmers and ranchers have a significant role to play in addressing the energy and environmental challenges facing our nation.

Today's hearing marks a vital opportunity as Congress deliberates how best to address climate change. NFU has been working proactively and constructively through the legislative debate to ensure our priorities and concerns are addressed. The cap-and-trade section of the American Clean Energy and Security Act of 2009 (ACES) approved by the Energy and Commerce Committee is a good first step for agriculture in that it does not attempt to cap emissions from our sector of the economy and includes 2 billion tons of allowable offsets. However, the legislation has serious deficiencies that prevent maximum participation from farmers and ranchers. NFU is part of a coalition that has worked to include additional improvements within the offset sections of the bill.

The intersection of climate change mitigation and American agriculture is complex to navigate. It often requires access to a special dictionary to define words like additionality, permanence, early actors and leakage. NFU has emerged as a leading voice for how agriculture can play a significant role in combating global climate change. Our members were early to acknowledge the negative effects climate change has on domestic food and fiber production. To address these issues, our policy supports a national, mandatory carbon emission cap-and-trade system to reduce non-farm greenhouse gas (GHG) emissions.

Failure to reduce GHG emissions poses significant economic impacts on agriculture and populations whose welfare is of special interest to the agricultural community. Models of climate change scenarios demonstrate increased frequency of heat stress, droughts and flooding events that will reduce crop yield and livestock productivity. According to the U.S. Department of Agriculture (USDA), risk of crop failure will increase due to rising temperatures and variable rainfall. Further, earlier spring seasons and warmer winter temperatures will increase pathogen and parasite survival rates leading to disease concerns for crops and livestock.

Although several policy options exist to address climate change, NFU believes the flexibility of a cap-and-trade program holds the most potential for actual GHG emissions reductions while mitigating increased energy costs resulting from such a program. A cap and trade system could provide farmers and ranchers the opportunity to be a part of the climate change solution by utilizing soil carbon sequestration and methane capture from certain livestock projects. These projects could be valuable revenue streams for producers who will experience increased agricultural input costs.

On April 17, 2009 the Environmental Protection Agency (EPA) issued its "proposed endangerment finding" which concluded GHG emissions are a threat to public health. The report was in response to a 2007 U.S. Supreme Court ruling that ordered EPA to determine whether carbon dioxide and other GHG emissions qualify as pollutants under the Clean Air Act. The proposed endangerment finding did not include any proposed regulations and remains open for public comment. It is understood that an endangerment finding under a single provision of the Clean Air Act cannot by itself trigger regulation under the entire Act. If Congress fails to pass climate change legislation, the EPA will move to regulate GHG emissions. It is not reasonable to expect EPA to try to regulate agricultural GHG emissions on the farm. A purely regulatory approach to addressing GHG emissions will bring all of the downsides of increased energy inputs without the upsides of carbon offset opportunities. For these reasons, NFU supports a comprehensive legislative approach to addressing climate change.

Agriculture's Role in a Cap-and-Trade System

NFU strongly believes that the agriculture and forestry sectors should not be subject to an emissions cap as they are too small and diffuse to be directly regulated. According to analysis completed by USDA and EPA in 2005, the two million U.S. farms and ranches emit minor quantities of GHG emissions, approximately seven percent of all U.S. emissions. Establishing a regulatory scheme to capture emissions from each of these two million farms would be extremely costly and burdensome and would likely fail to yield significant GHG emission reductions. Currently, EPA estimates that carbon sequestration by forests and agricultural lands offsets approximately 12 percent of annual GHG emissions with the capacity to offset 20 percent of GHG emissions from all sectors of the economy. A flexible offset program with appropriate financial incentives will accelerate sequestration practices under a cap-and-trade system. Carbon sequestration projects on agricultural and forestry lands

are the easiest and most readily available means of reducing GHG emissions on a meaningful and expedited scale.

In April 2008, the Dole-Daschle 21st Century Agricultural Policy Project released a report, "The Role of Agriculture in Reducing Greenhouse Gas Emissions: Recommendations for a National Cap-and-Trade Program." The report cited EPA analysis that estimated up to 168 million tons of carbon dioxide could be sequestered in U.S. agricultural soils on an annual basis. The Dole-Daschle report went on to illustrate EPA's projection of total income opportunity associated with the estimates at a price per ton range consistent with current modeling estimates of carbon permit prices:

\$10/ton CO₂ = \$1.17 billion/year

\$15/ton CO₂ = \$2.5 billion/year

\$20/ton CO₂ = \$3.4 billion/year

This income potential is significant to our farm and ranch members who will be faced with further increased energy input costs. Energy-based GHG emissions related to the agricultural sector would be regulated upstream at the fuel supplier, electric utility or large industrial level. Our members know they will face increased energy costs, but do not agree with those who claim there can be no economic benefits from addressing climate change.

The distribution of emission allowances will be extremely important to the ultimate viability of a national cap-and-trade program. We believe the majority of emission allowances should be auctioned by the Federal Government with the generated revenue used to mitigate the cost a cap-and-trade program would have on impacted parties and foster the development of renewable, low-carbon energy sources and technologies. A portion of the allowances should be given away to critical sectors of the economy to reduce overall transition costs, as well as to provide economic incentives to drive further carbon reductions.

Providing a percentage of overall allowances to the agricultural sector as proposed in the 2008 Lieberman-Warner climate change bill would offer flexibility for agriculture producers to implement activities that provide GHG benefits but may not technically fall within the scope of an offset program. For example, a smaller agriculture operation could engage in a practice appropriate for its size that provides GHG emission reduction could be eligible for an appropriate allowance benefit as determined by USDA. Under this scenario, farmers and ranchers would be given the flexibility to participate in different aspects of a cap-and-trade program, maximizing both producer participation and environmental benefits for our society.

In addition to receiving allowances, mechanisms should be established that allow agriculture to generate offset credits by implementing practices to more quickly reduce GHG emissions. Agricultural offsets provide the easiest and most readily available means of reducing GHG emissions on a meaningful scale. Farmers and ranchers, who demonstrate GHG sequestration and/or reduction, should be able to sell credits to regulated entities at a fair market price.

All existing rules-based and independently verified and registered tons implemented under current programs, such as the Chicago Climate Exchange (CCX), should be integrated into the Federal program to serve several important policy objectives. Specifically, incorporating existing verified and registered tons will prevent potential backsliding and continue to encourage agriculture offset projects while a Federal program is being debated, enacted and implemented. The ACES Act is unsatisfactory in its current form related to this issue.

Legislative Priorities

USDA's Role

With more than 20 years of targeted climate change research, USDA is well positioned to promulgate the rules and administer the agricultural offset program. USDA should be directed to promulgate regulations determining eligibility of agricultural and forestry offset projects and to administer related elements of such a program.

Currently, USDA maintains observation and data systems to monitor both changes in climatic patterns as well as beneficial practices put in place to reduce GHG emissions and increase carbon sequestration. USDA has the institutional resources, administrative structure and established relationships with producers to launch an effective offset program. The 2008 Farm Bill provided the Department with the statutory authority necessary to create and administer any offset program. USDA can leverage its experience working with farmers and ranchers to promote appropriate land based and manure management practices to drive maximum participation in the agricultural community. Agencies within USDA that have been

working on agriculture sequestration projects include the Natural Resource Conservation Service; Cooperative State Research, Education and Extension Service; Farm Service Agency, Economic Research Service; and Agricultural Research Service. Furthermore, for most farmers and ranchers in the country, USDA offices are located nearby.

Early Actors

Farmers, ranchers and landowners that already have entered into a voluntary, legally-binding contract and adopted certain practices to reduce GHG emissions should be allowed to participate under a Federal mandatory cap-and-trade offset program. Often referred to as “early actors,” these individuals are leaders who should be recognized and rewarded, rather than penalized and excluded. Some offset critics suggest early actors should not be compensated for carbon sequestered under a Federal offset program. Such an argument, however, runs counter to the overall purpose of an offset program, to encourage widespread adoption of practices that reduce GHG emissions or sequester carbon. We do not advocate that early actors be automatically issued offset credits or receive retroactive payments. However, if an early actor meets and complies with all offset protocols for a practice, technique or project type under the new law, then he or she should be eligible for offset credits and paid for future GHG emissions reductions or sequestered carbon.

Unlimited Domestic Offsets

As I stated earlier, EPA estimates agricultural soils and forestry lands have the potential to sequester enough carbon to offset 20 percent of annual emissions in the United States. The goal is to remove as much GHG from the atmosphere as possible. Legislation should not artificially limit the amount of domestic agricultural project offsets. The ACES Act limits the total quantity of offsets to 2 billion tons, split between domestic and international offsets. Domestic agriculture and forestry projects alone have the potential to meet the limit, yet we do not know what other types of non-agricultural activities will qualify under the offset program. In order to aggressively address the impacts of climate change, there should be no limit on offsets, including those generated by agriculture and forestry, in order to provide the easiest and most readily available means to reduce GHG emissions on a meaningful scale.

Other Concerns/Priorities

There are three other topics I would like to briefly highlight.

Additionality—Defining additionality has proven to be a challenging and highly subjective task. The basic concept behind additionality is that a project or activity should receive credit under a cap-and-trade program to the extent it generates benefits that are in “addition” to what would have occurred absent the project. NFU supports the establishment of a static baseline of activity to measure against when determining additionality. The fixed baseline should institute what practices were being performed on a specific piece of land on a specific date; any activity that results in GHG reductions measured against that baseline should be deemed eligible and additional. Defining this term quickly becomes a slippery policy slope that threatens to limit participation under an offset program. Opponents argue projects would not be additional if a practice is common in a given geographic area, if the practice would have occurred due to a preexisting law or regulation, or if the rationale behind implementing the action includes justifications beyond a cap-and-trade program. Each of these arguments creates a perverse definition of additionality that would exclude appropriate projects that offer real GHG emission reductions.

Reversals—The establishment of an offset reserve pool to address potential reversals of carbon sequestration projects is prudent for the integrity of the program. However, the differentiation must be made between anthropogenic (human-caused) and non-anthropogenic (natural) emissions. The purpose of the cap-and-trade program is to reduce man-made/anthropogenic carbon emissions. Therefore, in establishing a reserve pool of offsets, participants should not be required to account for reversals caused by natural acts such as hurricanes, drought and wildfires. A key factor in the establishment of the reserve fund is who pays for such a system. NFU supports holding an individual responsible for intentionally reversing a carbon sequestration project. Under current CCX protocols, twenty percent of a pool’s credits are set aside in a reserve account for reversals. These credits may not be sold until the associated contracts expire and all conditions are fulfilled. Penalties are levied against enrollees who intentionally break their contracts and reverse a carbon sequestration project. It is not equitable, however, to place the cost of unintentional reversals on offset providers. Resolving such reversals should be the responsibility of the government, not individual offset project representatives.

Stackable Credits—The benefits accrued from a project established under a GHG offset market often provide additional environmental benefits including clean water, wildlife habitat and reduction of soil erosion. Sometimes these practices provide additional income to producers beyond the economic value of the offsets. Allowing offset project managers to “stack” credits will maximize the economic benefits to producers, encourage additional projects to be launched and amplify the environmental benefits accrued.

Farmers Union Carbon Credit Program

Farmers Union became a CCX aggregator in early 2006 upon meeting the minimum eligibility requirements. The organization became involved in this effort with a goal of enhancing farm income through economically successful and environmentally sound land management practices that reduce or offset carbon emissions. Initially launched in North Dakota, the Farmers Union Carbon Credit Program was expanded in the fall of 2006.

CCX is North America’s only, and the world’s first, GHG emission registry, reduction and trading system for all six greenhouse gases. Members of CCX make a voluntary, but legally binding commitment to reduce GHG emissions. Many Fortune 500 companies, multinational corporations, utility and power generation companies and municipalities are purchasing CCX carbon credits for a variety of reasons. Some buy credits to boost public relations, while others have subsidiaries based in foreign countries and are obligated to reduce emissions or buy offset credits per obligations under the Kyoto Treaty. Still others are simply concerned about the environment and want to reduce GHG emissions.

Under the Commodity Exchange Act, CCX is defined as an “exempt commercial market.” Only firms that qualify as “exempt commercial entities” may have direct access to the CCX trading platform. Qualifications to become an aggregator include a minimum of \$10 million in assets and net annual income of \$1 million. CCX further stipulates that potential aggregators participate in educational sessions about the offset program and demonstrate a thorough understanding of the program requirements and protocols prior to engaging in aggregation.

The CCX program has developed standardized trading instruments and workable protocols for aggregation, registration, verification and sale of agricultural and forestry offsets. Currently, NFU is the largest aggregator of agriculture carbon credits on CCX. To date more than 5 million acres are enrolled across 31 states and nearly \$9.5 million has been earned for the almost 4,000 producers that are voluntarily participating in our program. NFU has learned valuable lessons on how to properly construct a cap-and-trade program. Attached to my testimony is a state-by-state summary of the acres enrolled in each eligible category.

Rules and protocols for trading carbon offsets are currently developed by a CCX offsets committee with information provided by soils, rangeland and forestry professionals via various technical advisory boards. Currently, not all regions of the United States are eligible for all classes of offsets. The following is a list of projects for which CCX has developed standardized rules, as well as the total related percentage of registered offsets: agricultural soil carbon (27.52%); agricultural methane (1.92%); forestry (14.21%); renewable energy (3.53%); coal mine methane (32.23%); landfill methane (7.48%); and ozone depleting substance destruction (1.49%).

Eligible practices under the Farmers Union Carbon Credit Program are limited to agricultural soil carbon including no-till crop management, conversion of cropland to grassland and sustainable management of native rangelands; forestry; and agricultural methane. Chapter 9 of the CCX Rulebook relates to offsets and early action credits and outlines detailed protocols. As an aggregator, it is our job to translate technical requirements into easily understood project obligations and communicate that information to producers. We believe the protocols and methodologies within CCX can serve as a starting point for a federally mandated offset program administered by USDA.

Since launching our program, many producers have inquired as to why they cannot sell their carbon credits directly to the market, rather than going through an aggregator. As with other agricultural commodity markets, carbon credits are registered and traded in large, standardized quantities. Similarly, a Minnesota spring wheat producer cannot simply haul his harvest directly to the Minneapolis Grain Exchange to sell. To access the CCX trading market, a producer must contract with an approved aggregator, who pools many producers’ credits, arranges for annual verification, registers credits with CCX, sells credits and returns sales proceeds to enrollees.

Different types of aggregators exist. Some focus on a particular project type such as sustainable rangeland management, continuous conservation tillage or sustainable forestry. Others focus on a specific geographic area of the country. The

aggregator can ultimately be referred to as the “project manager” of an aggregated offset pool, as the carbon offsets are the property of the aggregator for the duration of the contract. Aggregators are responsible to CCX for any losses due to non-compliance or failure of a producer to honor the 5 year contractual commitment to maintain the conservation practice.

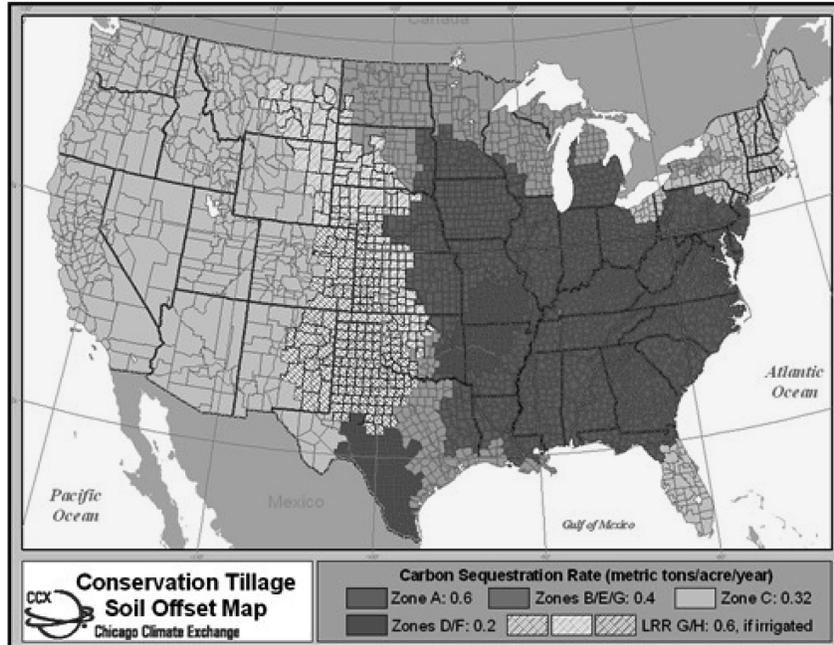
NFU retains ten percent of the gross sales as an aggregator’s fee to cover program development, software costs, program promotion, education and other costs. Other costs associated with the program include a mandatory \$0.20 per ton charged by CCX to register and sell an offset and third-party verification charges that average \$0.10 per ton of soil offsets and \$0.30 for forestry offsets. Despite the fee’s, producers can net a profit. For example in 2008, fees accounted for \$0.74 of every ton of carbon credits sold through the Farmers Union program. In the first 2 full years of the Farmers Union Carbon Credit Program (2007 and 2008), the pools earned, on average, between \$3.75 and \$4.50 per ton, allowing us to return more than \$8 million to producers.

Example: Kandiyohi County, Minnesota

A farmer in Kandiyohi County has 1,000 acres of no-till he wants to enroll in the Farmers Union Carbon Credit Program. According to the CCX Conservation Tillage Soil Offset Map below, his county is in Zone A and accrues 0.60 tons of carbon per acre annually. Under this example, the Kandiyohi County farmer will accrue 600 tons of carbon annually.

Upon successful certification and verification of the project, the Farmers Union Carbon Credit Program staff would register the 600 tons, but because CCX mandates 20 percent of the offset tons are held in reserve until the end of the 5 year contract, can only sell 480 tons. Assuming \$4.00 per ton (2008 price), the Kandiyohi County farmer would gross \$1,920. CCX charges \$0.20/ton for registering and selling the credits, the verification fee is \$0.10 per ton and Farmers Union aggregation fees total ten percent of sales, leaving this farmer with a \$1,548 for the year.

This calculation process is repeated annually at the varying offset price and at the end of the contract period, assuming full compliance, the farmer would receive the sales from the cumulative tons that had been held in the mandatory CCX reserve fund.



Zone A = .60 ton per acre annually; Zone B = .40 ton per acre annually;
 Zone C = .32 ton per acre annually; Zone D = .20 ton per acre annually;
 Zone E = .40 ton per acre annually; Zone F = .20 ton per acre annually;
 Zone G = .40 ton per acre annually.

Enrollment Process

An interested producer can log onto www.carboncredit.ndfu.org to enroll in the Farmers Union Carbon Credit Program. Currently, the website utilizes a map-based enrollment method for the nine Midwestern states, Wisconsin, Minnesota, North Dakota, South Dakota, Nebraska, Kansas, Colorado, Wyoming and Montana (a 48-state map will be launched by the end of this summer). Upon creation of an account, the producer selects the appropriate contract(s) and adds acres by selecting the appropriate parcels on a digital map. Required information, such as farm and tract numbers must be input to allow the system to automatically calculate total acreage. The producer can continue to add parcels until all acreage he/she wishes to enroll has been selected.

A customized 5 year contract must be printed, signed and sent to Farmers Union with appropriate documentation. Upon submission of all required paperwork, the producer enrollment process is complete. Producers must maintain the contracted conservation practice for the full 5 years, submit an annual postcard re-certification to Farmers Union, notify Farmers Union of any changes and make contracted acres available for verification. Farmers Union Carbon Credit Program staff contracts and coordinates with third-party verifiers, registers and sells credits with CCX and distributes annual earnings to the enrollee.

No-Till Required Documentation Checklist

After entering acres into the online database, the producer must print and sign the contract and certification page. The following is a checklist of required documentation to complete enrollment of a no-till soil carbon project:

- Most recent FSA Form 578 Report of Commodities (Farm and Tract Detail Listing) for all acres enrolled;
- Most recent FSA Form 578 Report of Commodities (Farm Summary) for all farms enrolled; and
- Most recent Aerial Maps for all parcels enrolled. Maps must be originals or clear copies. Maps MUST be marked with:

- Farm and Tract numbers;
- Acres in each tract; and
- Legal Description of mapped areas.

Additional documentation is required for contracts outside Wisconsin, Minnesota, North Dakota, South Dakota, Nebraska, Kansas, Colorado, Wyoming and Montana.

No-Till Crop Production Practice Management Guidelines

Crops must be grown annually. Pulse crops (*e.g.*, beans, pea's, lentils) may be seeded no more than 3 of 5 years, the use of chemical fallow is not permitted; and crop residue shall not be burned.

Implements acceptable for use include: no-till planter/drill; subsurface disturbance implements (vertical slot created by these implements must be closed at the soil surface), anhydrous applicator, manure knife applicator, subsoil/ripper. Implements NOT acceptable for use include: moldboard plow, tandem/offset disk, chisel plow, field cultivator, row crop cultivator, harrow (limited or emergency work only).

Verification

CCX protocols require a minimum random sample of ten percent of contracts and enrolled acres be verified on an annual basis. The sample must include a minimum of ten percent of contracts representing ten percent of acres in order to prevent a single, large enrollee from skewing results. The Farmers Union Carbon Credit Program actual verification sample is generally closer to 15 percent of all contracts and enrolled acres. The verification process is conducted by CCX approved third-party vendors. The North Dakota Association of Soil Conservation Districts, Association of Official Seed Certifying Agencies, AgriWaste Technology, Inc., SES Inc and Winrock International have conducted audits under the Farmers Union program.

The producer's costs of verification are split evenly on a per-ton basis since the compliance rate of the verified sample is credited to the entire pool of credits. Farmers Union covers the cost of verification and is reimbursed out of the pool sales proceeds prior to calculating the effective average ton price payable to producers. Very large projects (ranches of more than 30,000 acres and forestry projects earning more than 12,500 tons annually) must receive a site compliance check prior to initial off-set registration. The actual verification process is completed through paperwork review and site visits. Verifiers do not take individual soil samples, but rather confirm the contracted practice is being conducted and maintained. Since the beginning of our program, we have not found the verification costs or process to be a deterrent to producer participation.

Confidentiality

As a private enterprise, all contracts and supporting documentation are held in complete confidentiality by the Farmers Union Carbon Credit Program. In order to complete the verification process, approved third-party verifiers are provided copies of necessary documents for the sole purpose of program compliance confirmation. Verifiers are legally bound to protect producers' information. Further, as an aggregator, we must submit limited information, enrollee's name, contact information and acreage totals, to CCX when requesting credits be registered on the exchange.

Conclusion

The Farmers Union Carbon Credit Program and other aggregators are the bridge between agricultural producers and the carbon offsets market. For producers willing to commit to a management system, carbon credits are currently an additional source of income today. If Congress successfully crafts a cap-and-trade system that includes a robust and flexible offset program, the cost of compliance for capped sectors will be reduced and significant amounts of GHG emissions can be mitigated.

Enacting legislation to address global climate change will be one of the most significant challenges and opportunities for this Congress to undertake. Balancing environmental goals with consumer and economic impacts will be difficult. Yet, the chorus of those calling for action continues to get louder. While my testimony aims to detail the role of aggregators and opportunities for agricultural producers to participate in an offset program as well as highlight some of the policy priorities for NFU in the climate change debate, there is no question other issues and concerns will arise. As an organization that has been around for more than 100 years, we stand ready to help Congress accomplish one of the most significant policy challenges facing our country today. I look forward to answering any questions Committee Members may have and thank you again for including our perspective.

ATTACHMENT 1

Farmers Union Carbon Credit Program Acreage Enrollment Totals

State	No-Till	New Grass	Forestry	Rangeland
AR	0	0	1,740	0
CO	50,802	80,145	2	262,031
GA	218	0	314	0
IA	4,456	355	0	0
ID	0	0	0	18,109
IL	10,285	433	131	0
IN	52,635	1,105	235	0
KS	103,367	8,465	0	9,432
KY	4,476	128	0	0
MD	4,634	521	0	0
MI	3,434	205	0	0
MN	10,458	39,901	789	0
MO	24,254	4,584	168	0
MT	239,517	54,708	0	297,933
ND	1,386,746	69,416	81	212,515
NE	232,230	27,246	193	878,361
NJ	0	0	19	0
NM	0	0	0	40,712
NY	236	63	254	0
OH	43,939	1,547	220	0
OK	3,747	670	0	15,917
OR	0	1,402	0	0
PA	1,837	217	0	0
SC	141	0	0	0
SD	528,828	33,566	443	314,026
TN	6,432	693	125	0
TX	1,527	411	0	0
VA	3,785	911	514	0
WA	0	1,648	0	0
WI	19,714	3,065	1,086	0
WY	3,063	3,222	0	220,652
Total	2,740,761	334,627	6,314	2,269,688

Updated: June 9, 2009.

ATTACHMENT 2

carboncredit.ndfu.org



CARBON CREDIT PROGRAM

Home · No-Till · Seeded Grass · Rangeland · Forestry · Methane · Verifiers Log-In

» General Info · Payment Calculator · Tillage Guidelines · Sample Contract · Documentation Checklist

Management Practice	Acres	Seq. Rate/Acre	Metric Tons/yr
Please Select a State <input type="text" value="Oklahoma"/>			
Please Select a County <input type="text" value="Woodward"/>			
No Till Cropping	<input type="text" value="500"/>	0.20	100.0
Seeding Long Term Grass	<input type="text" value="0"/>	1.00	0.0
Enhanced Rangeland Vegetation	<input type="text" value="1000"/>	0.20	200.0
Total Farm Tons Annually			300.0
Price per Ton		06/08/2009	<input type="text" value="1.1"/>
<i>Total Annual Gross Payment</i>			330.00
<i>Less Aggregator 10% commission</i>			33.00
<i>Less CCX Offset Registration Fees (0.20 per ton)</i>			60.00
Annual Net Contract			237.00
<i>Annual Net Times 80% To Farmer (5 annual Payments)</i>			189.60
<i>Final Payment at Contract End</i>			237.00
Total 5 year Contract Income			1185.00
Disclaimer			
The above listed projected payments are estimates only using the current price of stored carbon on the Chicago Climate Exchange. Actual producer payments may be more or less depending on future prices at the time the credits are sold. Verification costs may further reduce actual producer payments.			



Add New Field

County :

Location : [\[info\]](#)

Owner / Landlord :

Farm Number : (from FSA578)

Tract Number : (from FSA578)

Year :

Select the Starting Year for this field!

No-Till Acres : Rate : 0.6

Grass Acres : Rate : 1
(Seeded after January 1, 1999)

Comments :

Location Information - The SE/4 of Section 4, Township 156 North, Range 76 West would be entered as 15607604D.

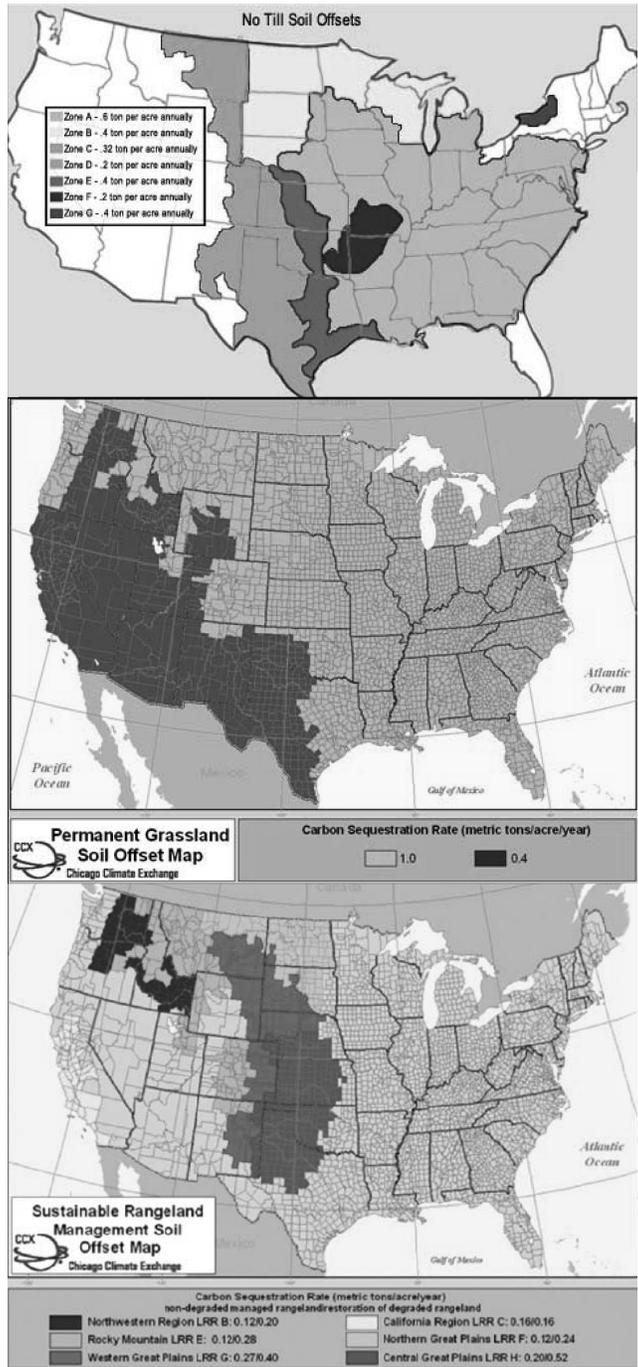
It is important that the Location field be entered properly. The format for this field lists the Township, Range, Section and Area with no spaces.

The first three digits represent the township (i.e. Township 156 North would be entered simply as 156)

The second three digits represent the range (i.e. Range 76 West would be entered as 076)

The next two digits represent the Section (i.e. Section 4 would be entered as 04)

ATTACHMENT 3



Mr. BOSWELL. Thank you.
Mr. Nobis?

STATEMENT OF KEN NOBIS, TREASURER, NATIONAL MILK PRODUCERS FEDERATION; DAIRY FARMER, ST. JOHNS, MI

Mr. NOBIS. Mr. Chairman, Ranking Member, and Members of the Committee, thank you for the opportunity to testify on dairy farmers' views on H.R. 2454, the American Clean Energy and Security Act of 2009.

My name is Ken Nobis, and I am a dairy farmer from St. Johns, Michigan. I am also Treasurer of the National Milk Producers Federation and President of Michigan Milk Producers Association, a Michigan-based dairy cooperative.

Today, I am speaking for the more than 40,000 dairy farmer-members of National Milk Producers Federation on the subject of proposed climate change legislation. And I want to thank you for the opportunity to offer this testimony on their behalf today. My testimony will focus on the specific context of offsets and allowances, and the changes we would like to see in H.R. 2454.

But before I begin, I would also like to thank the Members of this Committee for their continued support during these very difficult times for dairy producers across the nation. We are seeing some of the worst prices in history, combined with continued high input costs, and we greatly appreciate your help in trying to address this terrible situation.

With respect to greenhouse gases, inaccurate perceptions have persisted that animal agriculture is a significant contributor to U.S. greenhouse gas emissions. The reality is that dairy farmers have a history of dramatically reducing the carbon footprint of the industry, as noted in a Cornell University study published last year.

This study indicated that there had been a 40 percent reduction in greenhouse gases since 1944. And the dairy industry wasn't even trying; we were just advancing our herds to the more efficient production system we have today, which, coincidentally, lowered the carbon footprint of a gallon of milk.

We have committed ourselves to continue our efforts to reduce our carbon footprint by an additional 25 percent by 2020.

Although the dairy industry doesn't support all climate change legislation, if such legislation is in our future, we support the cap-and-trade concept. Agriculture should not be a capped industry, and dairy farmers should be allowed the ability to trade carbon credits with capped industries. And we would like a system that allows all dairies, regardless of size, to have an opportunity to participate.

One of our greatest concerns is the economic impact of climate change legislation. This has been a very difficult year for dairy farmers. One concern is how this legislation would impact our ability to continue to provide an affordable, highly nutritious food for consumers.

A cap-and-trade scenario would provide a method of raising additional funds to help us pay for added measures we could put into place to lower our carbon footprint more than we already have.

We feel strongly that, under cap-and-trade, USDA should be the agency dealing with farmers on developing and implementing standards regarding offsets. We understand EPA probably needs to be involved to some degree to oversee the environmental integrity of the offsets program, but EPA should not be empowered to act without involvement from USDA. USDA personnel are already located in most agricultural counties throughout the U.S., and farmers are accustomed to working with USDA personnel. The overall infrastructure is already in place to make the program a success.

Many farmers are by nature innovative and have already invested to reduce greenhouse gas emissions and sequester carbon. Congress must recognize and reward these efforts. These farmers should be eligible for compensation for the ongoing greenhouse gas emission reduction or carbon sequestration that they achieve within the offset program if they qualify under other offset protocols. Even if their practices existed prior to legislation, they should be eligible for offset credits.

In addition, baseline rules should not be changed without consideration of the economic impact on farmers. Frequent baseline changes will severely limit participation.

Climate change legislation must not be used as a backdoor method of adding even more regulations to large dairies than already exist today. It needs to be clear that emissions from all agricultural and livestock activities are not regulated, either directly by climate emission caps or indirectly by performance standards.

A very great concern of ours is that legislation would be passed here without similar regulations in other countries with whom our dairy farmers compete in the global marketplace. U.S. dairy farmers are suffering losses, like many other segments of our society, in this global recession. We are struggling to survive today because of the dramatic decline in export demand for dairy products. If we can't compete on a level playing field with other countries, we won't survive.

We in the dairy industry appreciate the help you have been able to give us in this economic crisis. And we are here today asking that we continue to work together, including on this important issue of climate change legislation, to continue to grow our very efficient dairy industry.

Thank you.

[The prepared statement of Mr. Nobis follows:]

PREPARED STATEMENT KEN NOBIS, TREASURER, NATIONAL MILK PRODUCERS
FEDERATION; DAIRY FARMER, ST. JOHN'S, MI

Mr. Chairman, Ranking Member and Members of the Committee: thank you for the opportunity to testify on agriculture's views on H.R. 2454, the American Clean Energy and Security Act of 2009. My name is Ken Nobis and I am a dairy farmer from St. John's, Michigan and I also serve as the Treasurer for the National Milk Producers Federation (NMPF). NMPF develops and carries out policies that advance the well being of dairy producers and the cooperatives they own. The members of NMPF's 31 cooperatives produce the majority of the U.S. milk supply, making NMPF the voice of more than 40,000 dairy producers on Capitol Hill and with government agencies, and I am offering this testimony on their behalf.

H.R. 2454, introduced by Representatives Waxman and Markey, is a very complex legislative proposal. Our organization appreciates the fact that the bill's authors do not regulate agriculture under the cap-and-trade system they propose in the bill. NMPF supports the concept of cap-and-trade as long as agriculture is not a cap industry. However, supporting cap-and-trade does not equal supporting all climate

change legislation. This is why it is critical that before this bill becomes law, Congress must address a number of concerns. My testimony today will focus on the specific context of offsets and allowances from which we view this bill and climate change policies overall and the changes we would like to see in H.R. 2454.

The Dairy Farm Economic Crisis

It has been a very difficult year for dairy farmers. And we have greatly appreciated all of your help and support as farm level milk prices headed sharply lower creating tremendous economic stress and pressures in the dairy farming community. The price that farmers were receiving for bottled milk was down nearly 50% from last winter. Current prices received by farmers do not even cover the cost of feed. The reason farm prices have declined so drastically is due to the slowdown in the U.S. and global economy with the end result of a precipitously drop in U.S. exports. The problems in the global economy and the effects on consumers' buying habits are adding to that downward pressure.

Dairy Farmer's GHG Commitment

Despite these severe economic challenges, dairy farmers and their cooperatives have maintained their deep commitment to reducing their GHG emissions on farm and throughout the dairy chain. Our industry has voluntarily committed to an action plan to reduce the carbon footprint of fluid milk by an additional 25% by 2020. Work is underway throughout the dairy industry to help achieve this goal. We are looking at farm practices ranging from dairy feed systems, efforts to reduce enteric methane production, to farm energy audits, and addressing barriers to methane digesters. At the processing level, practices being examined include items like non-thermal UV technology as an alternative to heat-based pasteurization, increased energy efficiencies in dairy plants, improved transportation systems, as well as product packaging and delivery systems.

Dairy Sector's Strong GHG Performance Historically and Today

There have been inaccurate perceptions that animal agriculture is a significant contributor to U.S. greenhouse gas emissions. In fact, the modern dairy sector has improved its performance on GHG emissions dramatically over the last 60 years and any effort to return to the production systems that prevailed in the 1940s would have a disastrous effect on our industry's GHG performance.

EPA has reported that animal agriculture is responsible for approximately 2.5% of U.S. GHG emissions, about half of which is enteric fermentation (1.7% of total).¹ As these statistics show, modern U.S. livestock agriculture is a very small portion of U.S. emissions. Manure methane and nitrous oxide emissions from dairy cows, as reported in the EPA Inventory, are only about 0.3% of total U.S. emissions of all GHGs on a CO₂ equivalent basis. The emissions from all livestock are only about 0.8%.² Research conducted recently at Cornell University and published in the *Journal of Animal Science* explores these questions and finds that the most efficient and environmentally friendly way to raise dairy cows and produce milk is definitely not the use of the dairy farm systems that prevailed before the advent of modern commercial farming. The article, entitled "The environmental impact of dairy production: 1944 compared to 2007," found that:

"Modern dairy practices require considerably fewer resources than dairying in 1944 with 21% of animals, 23% of feedstuffs, 35% of the water, and only 10% of the land required to produce the same 1 billion kg of milk. Waste outputs were similarly reduced, with modern dairy systems producing 24% of the manure, 43% of CH₄, and 56% of N₂O per billion kg of milk compared with equivalent milk from historical dairying. The carbon footprint per billion kilograms of milk produced in 2007 was 37% of equivalent milk production in 1944."

Not surprisingly, the dairy sector's total carbon footprint has also been dramatically reduced. Total GHG emissions for the dairy sector in 1944 was 194 million metric tons in CO₂ equivalents. By 2007 this had been reduced by 41%, to 114 million metric tons. The article closes with, "Contrary to the negative image often associated with 'factory farms,' fulfilling the requirement for dairy products of the U.S. population while improving environmental stewardship can only be achieved by using modern agriculture techniques." Modern U.S. dairy farming is a tremendous example of how the world can produce the goods and services needed by people, in

¹ Environmental Protection Agency (EPA), 2008. "Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2006." EPA, Washington, D.C. Calculated from statistics provided in tables ES-2 and 6-1.

² The other .2% of emissions associated with livestock production comes from nitrous oxide.

this case the very food we eat, and doing so while producing less GHGs per calorie of food.

Dairy producers and the entire dairy chain are committed to meeting these goals. It is from our dairy sector's commitment to continuing this record of GHG performance while helping feed the U.S. and the world and helping our businesses thrive that we offer the following comments on H.R. 2454.

1. The bill must establish a strong role for USDA. Currently, H.R. 2454 empowers EPA alone to establish, audit and implement all the offsets standards and protocols with no involvement from USDA. This is simply unacceptable. It is USDA that has the technical understanding of the various practices that can generate offsets and has done research on how to measure GHG reductions or sequestrations coming from these practices. It is USDA that has the relationships with ranchers and farmers to facilitate the implementation of the program. And, it is USDA, not EPA that has the infrastructure to manage such a program—with county extension offices across much of the country. We understand that there is a necessary role for EPA to play in overseeing the environmental integrity of the offsets program, but equally important is the role that USDA should be given in helping to set the standards for measuring and verifying agricultural offsets.

USDA is best positioned to create technical standards and protocols for GHG emissions reductions and sequestration from the agricultural and forestry sectors. Nearly all of the scientific data and documentation behind existing agricultural and forestry standards used by carbon registries is grounded in work conducted by USDA scientists or their land grant university partners. Thirteen of USDA's Forest Service scientists shared in the Nobel Peace prize for the UN Intergovernmental Panel on Climate Change report connected to their forestry work. USDA's Natural Resource Conservation Service, Cooperative State Research, Education, Farm Service Agency and Extension Service, Economic Research Service and Agricultural Research Service have done similar work for agricultural practices that reduce GHG emissions and sequester carbon, such as methane capture and conservation tillage. USDA's work is already part of the only comprehensive set of GHG inventory methods in the DOE's 1605(b) Program. USDA also has the institutional resources, administrative structure, and established relationships in place to engage farmers and ranchers across the country. USDA has tens of thousands of employees working with agricultural producers on various conservation issues. The relationships that USDA has with farmers and ranchers allow it to have the trust necessary to create, administer as well as drive higher levels of participation in the offset program. Indeed, their field assets, technical expertise and the level of trust that USDA has developed make it uniquely positioned. For these reasons §2709 of the 2008 Farm Bill gave USDA the authority to create technical standards to facilitate participation in emerging carbon, water or other ecosystem service markets.

Since EPA will be charged with administering the overarching cap-and-trade system, we would expect EPA to review the integrity of the offset program. In that regard, EPA can periodically review the standards, protocols and verifications systems established by USDA to ensure that they are being successfully implemented into the larger cap-and-trade system.

2. The bill's requirement for additional "performance standards" must be clarified so that CAFOs are not included in "back-door" climate regulation. Section 811 of H.R. 2454 tasks EPA to set standards for regulatory compliance measures that would be required of some uncapped sectors. The criteria listed for this section could include some of the larger CAFOs in the livestock industry and would therefore remove these operations from being able to provide offsets and would instead require measures such as digesters to reduce their emissions as part of the performance standard for their category. While enteric emissions from animals are not counted, nothing is mentioned about methane or nitrous oxide emissions from manure or from combustion processes. It needs to be made clear that emissions from all agricultural and livestock activities are not regulated—either directly by the climate emissions cap, or indirectly by the performance standards.

3. The bill should shorten the time allowed for setting up offsets program standards. Section 732(a) of the Waxman-Markey bill creates an offset program via regulation "Not later than 2 years after the date of enactment of this title". As written, it is probable that regulations establishing an offset program will not be in place when the cap-and-trade system takes effect. Having regulations in place early will allow the necessary infrastructure to develop to

establish a carbon market that can complete transactions and trades. Agricultural and forestry offset projects are currently being created across the country and in other countries under voluntary private and state or regional carbon markets. The Clean Development Mechanism (CDM) in the Kyoto Protocol, the Chicago Climate Exchange (CCX), the Regional Greenhouse Gas Initiative (RGGI), and California's Climate Action Review Board (CARB) all are examples of systems with existing carbon protocols and markets, providing ample precedent from which a Federal program can be crafted. Further, under the 2008 Farm Bill USDA has been charged with establishing protocols for carbon and other ecosystem service markets. The government of Canada is establishing a carbon offset program (to include agricultural and forestry offsets) in 2010, and the carbon trading program in 2012, to ensure the availability of offsets at the start of the system.

4. The bill must recognize and reward the avoided emissions efforts undertaken by agricultural leaders to reduce GHG emissions and/or sequester carbon. Significant numbers of agricultural and forestry landowners have already undertaken actions that reduce GHG emissions or sequester carbon. These early actors should be eligible for compensation for the on-going GHG emissions reductions or carbon sequestration that they achieve. The reason this is so important is because the greenhouse gas reductions and sequestration performed by early actors is not required by law and can be undone if the current bill's perverse incentive is not corrected. In order to maintain these avoided emissions—or emissions that could otherwise be emitted, there must be compensation. Since these actions will likely not qualify as offsets, they should be paid for out of the allowances or auction revenue of the bill. Currently, the bill has a very limited recognition of early actors. In previous climate legislation, 5% of the overall allowances were designated to the agriculture industry. If restored, this provision could create the necessary funding to reward early actors and continue the important avoided emissions of the livestock and agricultural sectors.

Congress must recognize and reward the early efforts undertaken by agricultural leaders to reduce GHG emissions and/or sequester carbon. Significant numbers of agricultural and forestry landowners have already undertaken actions that reduce GHG emissions or sequester carbon. Changes in management taken by these early actors include, but are not limited to, switching to or maintaining zero tillage (“no-till”), using new technology to capture methane for improved animal waste management, and afforesting or reforesting buffers or larger ecosystem landscapes. These early actors should be eligible for compensation for the on-going GHG emissions reductions or carbon sequestration that they achieve within the offset program, if they qualify under all other offset protocols.

The treatment of early actors is vital to agriculture's participation in a climate change system. Producers across the American landscape have been engaged in innovative efforts to sequester carbon using a variety of techniques. These producers should be allowed to participate in the offset program being created by Congress under a cap-and-trade regime. The central purpose of any offset program is to encourage the widespread adoption of conservation or other practices that reduce GHG emissions or sequester carbon and which in turn reduces, and potentially reverses global warming impacts, as well as provides cost containment for the entire cap-and-trade system. Agricultural producers who have already begun to experiment with GHG emissions reductions and carbon sequestration practices, techniques and projects are critical emissaries to promote and ensure widespread adoption of these practices. In fact, these early actors often are the leaders of agricultural organizations and their leadership is needed to constructively engage their organizations and their membership on climate change policy. Thus, by rewarding early actors we support constructive political engagement by agriculture and we create a core group of emissaries who will encourage offset projects.

Allowing early actors' projects to be eligible does NOT automatically result in offset credits being issued for previous reduction activities. Early actor projects, like any other project, would have to comply with all other offset protocols for the practice, technique or project type that they are engaged in. Thus even if a producer adopted a practice in 2002, if that producer does not meet other offset protocols he will not be eligible to provide offset credits. Further, early actors will not be paid for GHG emissions reductions or carbon sequestered retroactively. Instead, they will be paid for future GHG emissions reductions or carbon sequestration. As an example, if a producer began no till in 2002 and his

soil is projected to reach saturation in 25 years then that producer will only be paid for carbon sequestered between the date any cap-and-trade system starts and 2027.

5. The agricultural sector should be provided with an allocation of allowances, or a portion of allowance auction revenues. While climate change legislation will impose higher input costs (such as fuel and fertilizer) for agriculture as a sector, producers have an extremely limited ability to pass higher costs along to downstream purchasers. Agricultural producers are typically price takers in economic terms and in such a situation an allowance allocation, or the proceeds of an allowance auction, could serve to smooth the transition for producers, especially those that are not in a position to capture potential offset credit benefits. Small producers for example are less likely to be in a position to generate offset credits—it may be a simple matter of the amount of credits that they could generate not warranting the cost of changing the practice or the cost of compliance to verify the offset credits themselves. Allowance set asides, or the proceeds from an allowance auction, should be used to smooth the transition for at-risk agricultural producers as we establish a new carbon reduction system.

The agricultural sector faces unique challenges in dealing with the impacts of climate change as it begins to impact our nation and world. Agricultural producers experience and are impacted by climate and weather changes perhaps more than any other sector; for most farmers and ranchers changes in moisture, temperature, and alterations in the growing season directly impact the ability to produce the food and fiber our nation and world need. As such, allocating allowances or allowance revenues for research into adaptation is vital. New seeds, new technologies and new techniques will be needed for the farmer and rancher of the future to produce the same vast quantities of food that we enjoy today. As global populations continue to expand, the American producer will be called upon to produce even more, and government aided research efforts into adaptation can help achieve that objective.

Farmers and ranchers are creative and innovative. As carbon markets develop, new techniques, practices and technologies for reducing GHG emissions and for sequestering carbon will be developed, yet funding could be vital to bridge the development phase for producers. Allowance allocations, or the proceeds of an allowance auction, could serve to encourage the development of these yet to be discovered carbon sequestration or emissions reduction methods—allowances could in effect serve as a bridge as data is collected and verified. Eventually, after an appropriate developmental phase, some of these techniques could be certified as accredited offsets, and thus would no longer require allowance funding.

6. Offset eligibility and compensation should be based on whether a project, technique, or practice sequesters carbon, or otherwise reduces greenhouse gases (GHG) from a date certain. Use of the BAU methodology in the Waxman/Markey bill will limit the amount of GHG emissions reductions or carbon sequestration by agriculture and forestry. The central purpose of the legislation is to reduce or eliminate as much CO₂ as possible, yet by using a BAU methodology to determine project eligibility limits the amount of low cost offsets that will be provided. Section 734(a)(1) requires that offset projects conform to a standard methodology that will determine whether the offset project is BAU for an industry. The text further provides that the government can change baselines, perhaps significantly, on a regular basis. This unnecessarily creates a high level of uncertainty for agricultural producers and investors regarding whether offset projects they are undertaking or about to undertake will qualify for offset credits. Uncertainty in turn will dampen the level and scale of participation in an offset program, and hence the success of the offset program, which is an important component of cost-containment in a cap-and-trade system.

By applying this type of updated BAU test for additionality the draft also ensures that the “hardest” or least likely projects or producers (*i.e.*, those least likely to participate at modest prices and early stages of a program) will never participate. Rather than actively ignoring or omitting the “hardest” projects/least environmentally sensitive producers, an offset program should specifically strive to reach this population. Further, the logic of this type of BAU methodology devalues carbon emission reductions overtime. Projects that produce real, verifiable GHG reductions should receive credit.

To give one example: currently there are approximately 125 methane digester systems across the country, accounting for less than 1% of all dairy, hog, and beef cattle operations. Congress should enact a statute that incentivizes the installation of more digesters—striving for 100% penetration, for instance—rather than deciding that at 50% market penetration the practice is considered BAU and will no longer receive offset credits. Thus digesters installed when market penetration is at 45% are just as valuable to GHG impacts as digesters installed at 95% market penetration (and perhaps more so, if early reductions have already been achieved, and we are seeking the latter, “harder” reductions); each of these digesters should receive just compensation for the emissions reductions delivered—actual tons of GHG destroyed—and not be dependent on when they were built in relation to each other.

Currently the Waxman-Markey bill changes baselines over time unfairly moving the goal posts and limiting project investments. Rather than recurrently changing baselines as established in the bill, producers and investors need a static baseline to make production and investment decisions. USDA should be charged with determining the normal activity baseline for each offset project type using a historical or temporal baseline. Once USDA sets that baseline, offset projects can be judged against the baseline to determine whether a proposed action is additional *vis-à-vis* the temporal baseline. Such a baseline system will ensure certainty to producers (offset providers) and buyers.

7. Global Implementation of Climate Change Legislation. It is critical that the United States negotiates quickly a comprehensive implementation of GHG reductions around the world. Although we support the concept of cap-and-trade we remain concerned about the potential costs to the economy from unilateral action by the United States. There are a number of important agricultural exporters around the world that could gain competitive advantage if careful consideration is not given to the application of these reductions throughout the world.

These are the dairy industry’s top recommendations for realizing the ag offset opportunities promised by H.R. 2454. We urge this Committee to take on the role of champion for the agriculture industry in this matter as it has so often in other ag-related legislation. Our industry is strongly concerned that should the underlying bill pass without these important corrections, there will not be a workable offsets title for America’s livestock and farming sectors.

We cannot emphasize enough how important it is for this Committee to submit language that improves the existing bill and clarifies the issues we have raised today. There are some who would advise standing on the sidelines and opposing this effort entirely. We believe that this risks for too much for the livestock and row crop producers of America.

The bill at hand is flawed, but there are opportunities to craft a real market opportunity from it. The alternative could be outright regulation or costly energy and input increases with no way of recovering additional revenue if the agriculture sector as a whole takes a pass on getting involved in this issue.

We urge this Committee to proactively engage in making the Waxman-Markey bill better for agriculture.

Mr. BOSWELL. Thank you.

We will go to questions at this time, and I will yield my time to Mr. Costa of California.

Mr. COSTA. I want to thank the gentleman for yielding his time. Thank you, Mr. Chairman.

I thank the panel of witnesses.

Let me begin with Mr. Nobis. You talked about the plight of the U.S. dairy industry. I am third-generation dairy family. And that ground zero started in California, but it has now spread around the entire country. And it is very, very difficult, as you noted.

I am wondering, as we see some of the dairies trying to be innovative and look at efforts to deal with digesters to provide energy, where you see that fitting with this whole effort. We have complicating factors in California because of conflicts with attainment, non-attainment air basins.

But as it relates to—where do you see the digesters providing energy and, at the same time, fitting in with this Waxman bill?

Mr. NOBIS. Well, there are problems with digesters, as you know. They cost a lot of money to build. In addition to that, the energy that most of us are able to sell from a digester is valued far below the cost of producing that energy. So—

Mr. COSTA. Do you think that needs to be a consideration as a part of the change on this larger energy package, to how much energy, potentially, across the country could be provided if we could sell those back to the utility companies for energy? Has your group done any national evaluation as to the potential of energy source?

Mr. NOBIS. We have done a lot of work trying to get a higher price in individual states for renewable energy and have met with little success.

But if we could get—generally speaking, it takes 7¢ to 8¢ per kilowatt hour to break even with a digester. In my state, in Michigan, the buy-back from the utility is 3¢ per kilowatt hour, 3¢ to 4¢. So we would need something above 7¢ or 8¢ to make them economically viable.

Mr. COSTA. I would like to move on, and I am not sure which of the panel members might want to address this. But, there has been a lot of discussion of not punishing early adopters. And farmers and dairymen around the country have done a lot of things, like you noted in your various testimonies, with no-till and a host of other efforts to reduce emissions, switch to other environmentally friendly farming practices.

How do we account for that in this proposed Waxman-Markey bill or the Senate proposals that, under the category of “no good deed goes unpunished,” that you get credit for what you have already done?

Mr. YODER. I will take a shot at that.

I think the thing that is important to remember here is that each and every crop that is grown, new carbon is sequestered. So it is additional carbon each time you grow it. Why in the world would we want to punish some innovative farmer that went to great lengths to learn and adapt and try to find new ways to do it in a more conservative and environmentally friendly way?

Mr. COSTA. I would go further. I think we should get credit for that. Don't you?

Mr. YODER. Well, that is why, in my testimony, I am going even further back yet. Let's go back to the original Kyoto Protocol and go from there. And we have done a tremendous amount already from there.

So I would say, if during those years somebody would have adopted these new technologies for no-till, then they should actually have the option to go ahead and participate in this.

The one thing that we don't want is to have people breaking plow and turning this stuff under so they can qualify for a new program. So we have to make sure that those early adopters are rewarded, not punished.

Mr. COSTA. Right. And if the current law that is being proposed requires measurable improvements, we are going to be disadvantaged if we don't take that into account. And so I think that has

to be an important issue, that this Committee, in essence, draws the line in the sand for American farmers and ranchers.

One final question here before my time runs out, and I don't know who wants to take a stab at this. Some of you may have noted it in your testimony.

How would the offset program with the current farm bill that we passed last year work, since many of the farmers are using the conservation programs that were in the 2008 bill to do the things similar to what might be included in an offset program?

Mr. JOHNSON. If I could take a stab at that, I think that is pretty much what all of us are saying when we talk about stackable credits, that just because a farmer is engaged in a certain practice that has a societal benefit, the fact that you are engaged in it and may be paid for it from wherever should not preclude—

Mr. COSTA. EQIP program or whatever?

Mr. JOHNSON. Exactly—should not preclude you from participating in a carbon offset program.

Many folks will find that, before they will adopt a practice, it has to be more than just, "We are going to get a little bit of cost share," or, "We are going to get some of this." You have to add the various benefits, not unlike any other business. Before you make a business decision to purchase something, you have to figure out what are all the different advantages that you can get from that purchase.

Mr. COSTA. Get credit and incentivize good behavior.

Mr. JOHNSON. That is right.

Mr. COSTA. Thank you, Mr. Chairman, for yielding your time. I appreciate it very much.

Mr. BOSWELL. You are welcome. The chair recognizes Mr. Lucas.

Mr. LUCAS. Thank you, sir.

Gentlemen, members of the panel, you know from listening to the last witness that the issue before us is the question of how do we address the current draft of this cap-and-trade legislation put forth by Chairman Waxman and Chairman Markey.

So I would like to go down the row and discuss for the record, starting with you, Mr. Stallman, for the record, does your organization recommend a "yes" vote or a "no" vote for the current draft of the Waxman-Markey cap-and-trade bill, as we will see it in 2 weeks?

Mr. STALLMAN. That is the easiest question I have ever been asked. A "no" vote.

Mr. LUCAS. This is a follow-up question I will ask everyone. If an ag offset program is established—and there are still possibilities for change—but established with the EPA in charge, your response then to the bill would be?

Mr. STALLMAN. Still a "no" vote.

Mr. LUCAS. Mr. Ruddell?

Mr. RUDDELL. The current title for offsets is really lacking enough, and that there is enough detail to be able to say anything but "no" to that.

Mr. LUCAS. So "no" on the present bill draft and "no" if the EPA is put in charge of an ag offset program?

Mr. RUDDELL. USDA would have to have some sort of a co-working agreement with EPA.

Mr. LUCAS. So “no” and “no” to my question.

Mr. Garber?

Mr. GARBER. On behalf of the conservation districts, I am somewhat limited in that we haven’t set a policy on the position on this bill, so I won’t really be able to answer the first question, in that we are working on policy and should have something in the near future so that we can take a position on that.

And in relation to if the EPA has control of conservation districts across all the spectrums of agriculture and into all small land ownerships, and we are able to work cooperatively with a lot of different organizations. And, again, we really don’t have a policy on this, but we do try to work cooperatively with all agencies.

Mr. LUCAS. So, Mr. Garber, if you were a Member of Congress from Louisiana and you voted for the Waxman-Markey bill as it is now, could you go home?

[Nonverbal response.]

Mr. LUCAS. Good enough answer, sir.

Mr. Yoder?

Mr. YODER. The first part of your question is whether we could vote the way it is today?

Mr. LUCAS. Waxman-Markey in its present draft, which, as far as we know at this point of time, because Committee action is going to be cut off on the 16th of June, this will be the draft that will come to the floor the following week.

Mr. YODER. As I said in my testimony, in its present form it does not have any ag offset provisions for it, so, therefore, NCGA would be opposed to this bill.

Mr. LUCAS. Thank you. If language was added between now and the time it comes to the floor to create an ag offset program, but it is administered by the Environmental Protection Agency, what would your organization’s recommendation be to Members?

Mr. YODER. I think it would be horribly inefficient and ridiculous to have EPA reinvent the wheel and have people that don’t understand agriculture promote this bill. I would think it would not make sense.

The devil would be in details, but my first inclination would be that it would not work, so, therefore, probably not.

Mr. LUCAS. I will take that as the appropriate answer.

Mr. Johnson?

Mr. JOHNSON. We very much would like to support a bill. But, in its current form, we will not support this bill.

If EPA is put in charge of offsets and USDA does not have a significant role in the implementation of offsets, we will oppose that, as well.

We very much want to pass a bill, because we think the ramifications of not doing it may, in fact, be worse than what we are going to face in it. But we can’t support the current version.

Mr. LUCAS. You were very clear, and I appreciate that, Mr. Johnson.

Mr. Nobis?

Mr. NOBIS. Well, I testified today that we were not necessarily in favor of climate change legislation, but if we were, it would have to include cap-and-trade, that concept. And since this bill does not include cap-and-trade, as I understand it—

Mr. LUCAS. The answer would be a “no.”

Mr. NOBIS.—it would have to be a “no.”

Mr. LUCAS. And if the bill was modified to allow for offsets to address cap-and-trade, but it was administered by the Environmental Protection Agency, the answer would be? Because we only get a “yes” or “no” when we vote, as Members.

Mr. NOBIS. We would have to see it first, but the inclination would be “no.”

Mr. LUCAS. Thank you, sir.

And in my few remaining moments, to Mr. Nobis, I particularly feel for the dairy industry. Oklahoma was a substantial dairy state until the mid-1980s. And much like the rest of the country, the industry has changed across the board.

I would just simply put the question to you: One of the things I worry about in our remaining dairies across America, and especially the smaller ones, if it comes down to the decision of how to allocate that methane gas, that the little dairymen—and there are still some 50 cow dairies in certain parts of this country, and 200 and 250 cow dairies—I worry that they will not be able to compete with municipal sewer lagoons over who gets that allocation of methane. Unless it is addressed clearly, as you and my colleague from California addressed, they are not going to be able to afford these digesters or these other technologies. I worry very much about your people.

Mr. NOBIS. And so do we, sir. As I have testified, we are very concerned about the small- and medium-sized producer. The larger producer is more able to spread those costs over more cows.

Mr. LUCAS. Thank you very much.

I yield back, Mr. Chairman.

Mr. BOSWELL. The chair recognizes Mr. Walz.

Mr. WALZ. Thank you, Mr. Chairman.

And I thank the Ranking Member for being very clear.

Each one of our witnesses, I want to thank you for several reasons, for creating quality of life in southern Minnesota. Agriculture is very, very important, and each of your organizations have improved the quality of life not just of your producers, but for all of us.

And you have also been on the forefront—I reject the false dichotomy, again, that our producers aren’t on the leading edge of environmental concerns. They are. And so, the questions that are being raised today are truly how to make this workable. I don’t think you are going to find anybody in this room who disagrees, we need to get this right.

I think that the most poignant thing that Secretary Vilsack said that I could not echo more is, we are part of the solution. We are not the problem; we are part of the solution. And what we want to try and do is see how we get at that. And we want to get there.

And, Mr. Johnson, you brought up a very, very good point that I want to be very clear on, too. And I guess I will do the same thing, maybe, that the Ranking Member did and go down the line.

It has been suggested that we just do nothing and go on as usual. Would your organization support that? Just throw this all out, do nothing on climate change, reject it, and just go on with business as usual?

Mr. STALLMAN. If it meant rejecting this current bill and doing that, yes.

Mr. WALZ. Okay.

Mr. RUDELL. No.

Mr. GARBER. NACD does feel like we need to do something on climate change.

Mr. YODER. For the last 4 years, we have been working on figuring out opportunities that could be present for agriculture, and there are. So I would say, no, that we would seek ways that we could showcase agriculture as a solution, as you said.

Mr. JOHNSON. As I think my testimony was quite clear, we believe very strongly that this issue needs to be addressed. We think it should be addressed legislatively. We have a Supreme Court decision staring at us, a determination that EPA has made that is very troublesome for us. We understand that other people can sue, and that compels a lot of the actions that get put on us.

And, frankly, as you know, much of the rest of the world is doing this. I think it would be very sad if the U.S. didn't try to re-exert a leadership role in solving this troubling issue for our planet. And the time to do that is now.

Mr. NOBIS. The problem that we have with it currently is that it is going too fast, that there are too many questions yet, there are too many assumptions. It would appear that maybe we need to do something, and especially in the case of energy security. We are willing to look at it under the proper context.

Mr. WALZ. Well, I appreciate that. And I hope there are other Members of Congress listening to this. I think Mr. Lucas's two questions were very appropriate and needed to be there. And it is also appropriate, the question that I asked, that they need to hear: We want to be part of the solution, as we already are. We want to get something done here. We want it in a workable manner.

And we don't have to take the false choices that this has to be economically damaging. I have seen golden opportunities in southern Minnesota where we have benefited. We have also benefited on energy security, and we have also benefited on reducing carbon emissions. Those things are there, but it needs to be smart.

So, again, I will yield back my time, but I do want to thank each of you for being part of this solution and being here.

And I thank the Chairman and Chairman Peterson for recognizing that we are not here to be naysayers on everything. We are here to make something that actually works. My largest concern is that whatever we do needs to work for everyone.

So thank you all, and I yield back.

Mr. BOSWELL. Thank you.

Mr. Goodlatte?

Mr. GOODLATTE. Mr. Chairman, thank you very much.

And I appreciate all the members of the panel for their candid answers to our questions. I want you all to take a deep breath and step back.

Mr. Johnson, I know you said you have a Supreme Court decision staring you in the face. Congress can certainly take action to prohibit the EPA from acting on that. That legislative effect could go on from year to year, or we could actually repeal where they stand right now on that. That certainly is not where the Congress

is today, but I would urge you not to rush forward without taking a look at where we may be heading.

Now, you also said that you felt that there were countries in the world who were doing this already. Can you name one?

Mr. JOHNSON. Of course—

Mr. GOODLATTE. One that has anything remotely like the Waxman legislation?

Mr. JOHNSON. Well, much of the EU has adopted cap-and-trade legislation. That is their tool of choice. Most of the signatories to Kyoto have adopted some sort of a market-based mechanism. And the tool of choice seems to be cap-and-trade, because it allows the market to sort of figure out who the lowest-cost emitters are and let them get the emissions from the lowest-cost sources first.

Mr. GOODLATTE. I think, if you look, you will find that none of those countries have adopted anything remotely like the Waxman legislation.

Mr. JOHNSON. Well, I spent some time in Europe meeting with the folks in charge of the system that was created over there, probably, about 3 years ago. And so I visited at some length with the folks from the European Commission. We went around to different countries and visited with environmental ministers. We looked at coal plants and the technologies they were trying to use. We learned a lot about what they did that didn't work very well.

I mean, to compare exactly that to Waxman-Markey is quite difficult, but the cap-and-trade methodology is what is being used there. It is what we use here in EPA with other criteria pollutants.

And so, that methodology seems to be the best tool. Certainly, it is better than simply regulating down—squashing down emissions from everybody.

Mr. GOODLATTE. Well, let me ask you, in terms of looking at what we should do here, are you familiar with a book called *Cool It—The Skeptical Environmentalist's Guide To Global Warming* by Bjørn Lomborg, a Dane?

Mr. JOHNSON. No.

Mr. GOODLATTE. I would commend it to all of you. It is a short book, less than 200 pages long. He says global warming exists. He says global warming is largely caused by human activity. And he says that cap-and-trade and efforts like the Kyoto Protocol to reduce greenhouse gas emissions, to effectively try to turn down the thermostat of the world, is one of the biggest wastes of resources that jeopardizes the well-being of advanced economies around the world.

And people are listening to him in more and more places around the world. They are saying you are far better off spending these resources adapting to the change that comes about from greenhouse gas emissions and putting it into developing technologies that would lead us away from reliance upon energy that is produced through carbon, and not trying to rush to judgment on reducing this when the mean, average estimated reduction in temperature in the globe 60 years from now is estimated to be somewhere between $\frac{2}{10}$ of a percent and $\frac{1}{20}$ of 1° C.

I mean, what are we wasting these huge resources for when trillions of dollars are being diverted from producing clean water, fighting disease, dealing with flood control, all of the other things

that challenge societies? And we would devote our resources instead to something that will raise electricity rates to the average American 95 percent, that will raise the average gas prices 74 percent, that will raise natural gas prices 55 percent, and that will devastate not just American agriculture but manufacturing, many other sections of our economy.

Let me ask you this. All of the nuclear power plants in this country are located in rural parts of the country. Do you favor legislation that would give no recognition, no cap-and-trade benefit to nuclear power producers, which provide 20 percent of the electricity in the country and which have no greenhouse gas emissions?

This legislation doesn't provide any credit to them. We could build, like France has, nuclear power capacity to a much greater extent if we could let them get credit for the sales of their electricity that is greenhouse gas emission-free.

Do you think the legislation should include that? Anybody?

Mr. STALLMAN. I absolutely think we ought to do whatever we can to encourage and continue the use of nuclear energy. In fact, the plug-the-gap issue that I talked about, in terms of energy supply, is a very clear one. And if we are going to do it with non-carbon-based fuels, we have limited choices.

Nuclear is a clear choice. We know it works. All we need to do is provide incentives, streamline the approval and siting process, and cut out the delays of 10+ years and billions of dollars' worth of costs that have been inherent in siting and building nuclear power plants. But, yes, nuclear has to be a part of the solution.

Mr. GOODLATTE. With coal producing 50 percent of our electricity today, do you think that legislation that would prohibit the construction of any new coal-fired electric generating plants is one that will help us out of this problem?

Do you think that we should jump to the conclusion of not producing new sources of energy from traditional carbon-based fuels without having the reliable replacement, whatever it might be, on hand is a good idea?

Mr. YODER. I would just like to say, to address that, in Ohio, I think 95 percent of our electricity is generated by coal. And that is the biggest reason why you have to have a robust and plentiful agriculture carbon offset market. Because, if you know farmers, they will always—they will go to work, and these carbon credits will be real and they will be verifiable. And so the more carbon credits you can supply to the market for the people that need it, the less impact there will be on those—

Mr. GOODLATTE. So they are going to need it just to offset their own increased electric costs, aren't they?

Mr. YODER. Yes. But the point is, if you have a robust and plentiful carbon market, that will decrease the amount it is going to cost. And consumers are going to benefit by not having that big shock like we all know is going to happen if we don't have a plentiful amount.

Mr. GOODLATTE. Well, my time has expired. Thank you, Mr. Chairman.

Mr. BOSWELL. The chair recognizes the gentlelady from Illinois, Mrs. Halvorson.

Mrs. HALVORSON. Thank you, Mr. Chairman.

And thank you, panelists, for being here.

We have all heard in the testimony that you think it is important to establish measurement rates for offsets and offset practices that are based on a standards-based approach rather than project-based.

Could somebody from the panel explain why it is more important to have a standards-based other than the project-based? I heard someone say it, and I am not sure who it was.

Mr. YODER. I would like to say that one of the reasons why it should be on a standards base rather than a project base is that, if everyone—we hope everyone can, that is possible, can contribute in this way.

If, say, take, for instance, carbon sequestration. If you have physically went out and measured each and every ton of carbon that was sequestered, it would be an enormous cost. And what happens is, even if you thought that carbon was worth \$30 a ton, you may use 50 percent of that up in the verification process.

But if you could develop standards for that particular soil type and that particular environment and that particular location, that if you do these, these practices that it is scientifically verifiable that you are sequestering X amount of tons, then that is a much more efficient way to do it. And that way, there is that much left over for the farm. The farmer can go ahead and receive that money from the carbon, rather than give it all to the verification system.

Mrs. HALVORSON. So, in your opinion, does that make it more objective instead of subjective?

Mr. YODER. I think it makes it more efficient and more practical.

Mrs. HALVORSON. Okay. Thank you.

I yield back.

Mr. JOHNSON. If I could add to that, if you will look at my testimony, on the page where I showed the map of the U.S. in it, those are standards-based protocols that are involved. Science has been used to figure out that if you follow these practices in these geographical areas, you will, in fact, sequester X tons of CO₂ or CO₂ equivalent.

And so, it is much, much, much more efficient if you can have the science that says, over a large area, if you follow this protocol, you are going to get this result, as opposed to having to prove on a project-by-project-by-project basis. It is efficiency more than anything else, cost-effective.

Mr. GARBER. I might also add that, in the USDA, the NRCS is very much qualified in doing this. And that knowledge is there and can be improved to meet whatever needs are here.

Mrs. HALVORSON. Thank you.

Mr. BOSWELL. Thank you.

Mr. Moran?

Mr. MORAN. Mr. Chairman, thank you very much. Thank you for associating yourself earlier with my remarks. I appreciate the working relationship you and I have.

Let me start with this the Energy and Commerce Committee held some hearings on this bill. To my knowledge, no agricultural witness was asked to testify or testified during any of those hearings. And I want to confirm that, as far as you know, that is true.

Farmers Union, Farm Bureau, Wheat Growers, Corn Growers—did you all have any opportunity for input for a piece of legislation that I assume you would tell me will have a dramatic effect upon your members?

Mr. STALLMAN. Nothing beyond what we did behind the scenes with the staff, trying to exert some influence and provide some input. But, no, we had no ability to affect the outcome.

Mr. MORAN. Anyone else?

Mr. JOHNSON. We did not. We testified in front of Small Business, I believe. In fact, a number of us on this panel did. We shared all of our testimony with folks on the E&C but were not provided any opportunity for direct input or testimony on that language.

Mr. MORAN. The same with Corn Growers?

Mr. YODER. Yes, sir.

Mr. NOBIS. Dairy had no opportunity, either.

Mr. MORAN. Well, I assume that you would all concur with the reality that agriculture will be dramatically affected by a piece of legislation that, as far as we know, no one from the agriculture community had an opportunity to testify on. Is that true?

Mr. STALLMAN. That is why we so greatly appreciate what the House Agriculture Committee here is doing. It is our first opportunity to weigh in.

Mr. MORAN. I appreciate that.

I guess, let the record show that none of our witnesses know of any agricultural witness that was asked or had the opportunity to testify before the Energy and Commerce Committee, which, as I think about it, is just—I am astonished by that, knowing what the consequences will be.

It is a reminder of why we have this discussion about how we want the Department of Agriculture involved in this issue. The same is true in committees. The Agriculture Committee has hope that agriculture will have a voice, just as we hope the Department of Agriculture is. Doesn't happen with the Commerce Committee and unfortunately doesn't happen with the EPA when it comes to interpretation and implementation of rules and regulations.

Mr. Johnson indicated that, at least to some degree, the European Union is operating under rules related to—in climate change, global warming—to some degree, cap-and-trade. I don't know how similar they are or not.

But what percentage of our ag income comes from exports for American agriculture?

Mr. STALLMAN. It varies. A quarter to a third, basically.

Mr. MORAN. Across the agriculture sectors, a quarter to a third of what income we produce in agriculture comes from our ability to export agricultural commodities, food, to other countries. True?

And is there any analysis that any of you have done or seen that determines the consequence of the increasing cost that will come from this legislation upon our ability to remain competitive, to continue to have 20 to 30 percent of ag economics, ag income come from foreign sources?

Or, let me ask the question more precisely: Any analysis out there that shows how increasing costs associated with cap-and-trade, as written, will affect our ability to sell agriculture commodities and food around the world?

Mr. STALLMAN. That is strictly an international competitiveness issue. And that answer really can't be provided until we know if other countries are going to burden themselves with the same economic constraints that we see under the Waxman-Markey bill for us.

I mean, if China, India, and some of the advanced developing countries that compete with us directly, sort of, want the U.S. to lead, which means the U.S. should give and they shouldn't, and they don't have to be restricted by the same kind of economic burdens that looks like we would be under Waxman-Markey, then, yes, that would have an impact and, yes, we would be able to measure it at that point.

Mr. MORAN. But under the current scenario, in the absence of those legislative changes, that policy change in other countries, what is the effect upon our ability to compete in the global economy?

Mr. STALLMAN. It would make us less competitive.

Mr. MORAN. And can you—

Mr. STALLMAN. I can't quantify that at this point. We did not analyze that at this point.

Mr. MORAN. Well, it is an interesting observation that we might wait and see what other countries might do before we know the outcome of this legislation. Or one might think that we would want to set down, as we have attempted to do in trade agreements, and reach a conclusion at the same time so that we are operating under similar constraints and a much more level playing field.

But, clearly, the United States unilaterally making this decision, in the absence of someone immediately following us, any of our competitors, it seems to me we would be at a significant competitive disadvantage.

Mr. YODER. If I could just clarify an answer to your question?

Mr. MORAN. Please do.

Mr. YODER. One of the things that I think is very imperative is, if this Waxman-Markey bill does not include agriculture offsets and if it gets passed in the House and that is the so-called marker or template for when the United States goes to Copenhagen this next winter to negotiate a Kyoto II, we will be at a horrible, horrible disadvantage in agriculture.

If we can showcase agriculture offsets as a possible way that they can use and be on the same page, it is going to be much more important than if we go in there with nothing provided for agriculture, we will be at a horrible disadvantage. So it is very important that ag offsets are included in this bill.

Mr. MORAN. I appreciate your remarks. That is a good reminder that, if we are setting the template, if we are setting the standard by which we expect the rest of the world to operate, we ought to make certain that we do it right, as compared to just do it.

Mr. YODER. You bet.

Mr. MORAN. And the only other observation I would make, Mr. Chairman, is I appreciate Mr. Johnson pointing out that, in the absence of these agricultural offsets, it is not just agriculture that is negatively affected. What he pointed out, it is across the board to the economy. And I had not thought about that, but I think that, to me, seems a very important feature or fact to know, is that, in

the failure to get what many on this Committee are seeking in regard to agricultural offsets, the entire U.S. economy—you point out about what happens if it becomes worldwide if this is the framework. But what we are saying is that the additional cost—there is going to be a significant increase in the overall cost of cap-and-trade in the absence of agricultural offsets that will affect everybody else, not just ag producers.

Mr. JOHNSON. I know the timer has expired, Mr. Chairman, but if I could add just a point to what the Congressman said.

Ag offsets expand the market for carbon. When you can expand the market and have more players involved in the market, either by more people under the cap or more people allowed to bring offsets into the cap, you have more opportunities for more efficient emission reducers to act. And as you get more efficient emission reducers acting, you tend to lower the cost for everybody. You lower the price for carbon, in fact, to the whole system, and that helps to make the whole system more competitive.

That is the reason, fundamentally, why most of us think that, if you are going to do something relative to climate change, it makes more sense to have a cap-and-trade system that allows the market to sort of move these things, as opposed to having a regulatory agency say, “You will reduce, you will reduce by X, Y, or Z.” If you let the market do it, it will be more efficient.

Mr. MORAN. Thank you, Mr. Chairman.

I am additionally troubled that not only was there no ag testimony in the Energy and Commerce Committee, but a gentleman, Mr. Space from Ohio, offered an amendment to bring agriculture in with those offsets and that amendment was withdrawn, which suggests to me that there is no support among that sector of those Members of Congress for the things we are talking about.

Thank you.

Mr. WALZ [presiding.] I thank the gentleman.

The gentleman from North Carolina is recognized for 5 minutes.

Mr. KISSELL. Thank you, Mr. Chairman.

And I thank everybody for being here.

And following along the lines of some of the questioning that we have had, and maybe in a way that Mr. Lucas did earlier, if—and I emphasize the word “if”—if we had adequate, good agriculture offsets in this program that were administered in an acceptable way by the USDA—and if each one of you could respond to this—would that change your opinion of how you would look at this bill?

Mr. STALLMAN. That would be a necessary but not a sufficient condition for the American Farm Bureau. We would still have to have some of the other provisions I talked about in the testimony. And even then, we would have to analyze what the ultimate economic effect would be on agriculture.

Mr. RUDDLELL. I would have to agree with that. You know, it is important to have USDA have a strong role, but there are many other parts of the offsets provisions that are too weak to be able to support it.

Mr. GARBER. The offsets is very much a big part of what NACD believes in, and it would definitely need to be a part of it for us to support it.

Mr. YODER. Once again, the devil will be in details. If the ag offsets would be sufficient and robust, and the protocol would be put forward where we could manage it efficiently and appropriately and have it all ready to go, definitely, we would have a much better chance of supporting it, absolutely.

Mr. JOHNSON. We would be very inclined to support the bill if it contained all the provisions that have been outlined in the letter that I referenced in my testimony, and all the Members of the Committee received, just short of a month ago.

Mr. NOBIS. For us, it would be a move in the right direction, but it would not necessarily mean that we could support it. That is just one piece of what we think we need.

Mr. KISSELL. Okay. Thank you, gentlemen.

And, Mr. Chairman, I yield back my time.

Mr. WALZ. Thank you.

The gentleman from Texas is recognized for 5 minutes.

Mr. CONAWAY. Thank you, Mr. Chairman.

Guys, thank you all for staying late and putting up with our nonsense and running back and forth across the street and all that kind of stuff. I appreciate you being here.

The broad, 10,000 foot statement is, it looks like everybody wants to go to heaven but nobody wants to die to get there. You know, nobody wants to pay for all this kind of stuff.

I was particularly keen on Mr. Johnson's comment about your idea that there should be a cost-benefit analysis, there should be a cost-benefit to this overall program. I had an opportunity to talk to—I am also on the Intel Committee, and we have some scientists over there that spend a good amount of their time on climate change as it relates to our national security interests.

And I asked him, if we got this Waxman-Markey bill done, 83 percent reduction over the next 40 years, could you measure, as a scientist, measure the benefit to the atmosphere for putting ourselves through this thing? Because, some conservative estimates are showing \$3,100 a year in costs to the average family. And he looked me right in the eye and said, "Maybe." And I said, "You might be able to measure the positive benefits?" He said, "Yes, we might be able to."

Concurrent with that, we had a conversation with a fellow named Niger Ennis with CORE, the Congress on Racial Equality, not someone you would normally think would be lined up with all things Republican, but he has a great presentation on the impact that this regressive tax will have on the poor and low-income of our society and all the swaps and credits and all the other stuff—that is always inefficient, it never works well—will have on those folks. They have a study that shows that if America went to a zero carbon footprint, that over the next 100 years it might make a .007, $\frac{7}{1000}^{\circ}$ C difference on the atmosphere. Again, not measurable in benefits.

So, Mr. Johnson, do you generally recommend to your folks that they spend whatever amount of money, whether it is \$1,000 a year or \$3,100 a year, and get no benefit for those expenditures? Is that something that any good businessperson would normally do?

Mr. JOHNSON. There is a little bit of a rhetorical element to that question.

Mr. CONAWAY. Sure.

Mr. JOHNSON. I am not a scientist, and I can't tell you what the deal is and how much reductions are going to be and all those sorts of things.

My understanding is that the glide path that Waxman-Markey outlined in terms of emission reductions is similar—and there is fuzziness around that word—but it is similar to what Kyoto and the scientific consensus, if you will, has suggested is the necessary glide path.

Our input is not into what the numbers should be—

Mr. CONAWAY. But the issue, though, is, who presumes that that glide path is right, that that is where we ought to go? And, again, it is rhetorical. I just question that—it is like a giant SimCity exercise. We have decided to build a new city, whether we need one or not. Then we go through all of this exercise, and then we put all this stuff together, and, oh, my goodness, we have jammed up this deal, we have jammed up that deal. And we start trying to fix all these kinds of things. But the predicate is, do we really need this? And I get to be skeptical in this regard.

Let's switch over to the EPA real quickly. Any experience with your members in which the EPA has been particularly farmer-friendly and would make a decision that would—and I am thinking off the top of my head of these pending regulations that would require them, every time they put down a chemical, to have to go get a permit from somebody. Recent headlines, that the EPA has decided that farm dust has to be regulated, as well, and controlled.

So, anybody have any positive experiences with the EPA and their pending takeover in this arena?

Mr. JOHNSON. Well, I don't want to suggest that it is in this arena, but, I mean, in fairness to EPA, I just spent 12 years as an elected official in the State of North Dakota as the Agriculture Commissioner, and we did numerous engagements with EPA. We regulated pesticide use through the Department. Most states have similar arrangements with EPA.

And so, there are ways that states and state agencies can cooperate with them. And we happen to have—our local office, if you will, was Denver, Colorado, so—

Mr. CONAWAY. Okay. Let me—just, again, it was more rhetorical than anything else. This is a new EPA, bigger budgets, more lawyers, different head. Lisa has a particular bent toward more regulatory schemes, *et cetera*.

One final question. Does anybody on the panel think that it is in Congress's best interest to make a decision on this bill, right, wrong or indifferent, without having USDA's best guess as to what the overall impact on all things ag—the ag industry, ag community, our local small farmers, big farmers, middle farmers, whatever it is—should we make the decision on this bill before we get USDA's estimate?

Anybody think that is a good idea?

Mr. STALLMAN. Well, not only should you not make the decision before you have USDA estimates as to the effect on agriculture, but all of the alternate scenarios I talked about that could happen beyond the, sort of, best-case scenario presented by the EPA analysis,

that Congress should take the time to have analyses that shows what happens if the best case doesn't work.

So, yes, I would think you would want much more information than you have now.

Mr. CONAWAY. All right.

Thank you, Mr. Chairman. I yield back.

Mr. WALZ. The gentlewoman from Pennsylvania is recognized for 5 minutes.

Mrs. DAHLKEMPER. I thank you, Mr. Chairman.

And I also want to thank the panel for your patience with us today and for giving us your afternoon and now into your evening.

I just want to go back to carbon offsets and ask you, to what extent do you think Congress should identify eligible practices and legislation? Or should authority be delegated to the Federal agency that oversees the program and develops regulations and standards for the program? I think everyone in this room believes that that agency should be USDA.

So, if someone could answer that.

Mr. STALLMAN. In the statement we submitted for the record, we included section 733 in the Energy and Commerce Committee report, which actually laid out a list of offset practices that could be included. It wasn't specific; it was general enough to where there was still room for development within those categories. But at least it listed the types of projects that would qualify for offsets. And what we are asking is that such a list be included in the actual legislation.

Mrs. DAHLKEMPER. What land use changes and practices should be eligible? You know, when we are talking about land conversion, restoration, retirement, we are talking about livestock operations and grazing and crop production practices, if anybody maybe could identify in your specific area what you think should be eligible?

Mr. YODER. Well, I think that we tend to just think of credits as carbon sequestration and for no-till or reduced-till. I think the sky is the limit, as far as creating these carbon credits.

For instance, technology is going to be coming very soon where we can raise the crop with drought-resistant genes, so we can pump 40 percent less water to grow a bushel of corn. And so we think that there should be a carbon credit maybe to deliver from that. Or if a livestock person wanted to cover their lagoon and capture the methane from that, there should be a carbon credit generated from that.

There are lots and lots of ways that you can create these credits that you don't necessarily have to completely change your cropping practices, but they are still real and verifiable, and you can prove that they are worthy of a carbon credit and payment. So let's not limit ourselves to just no-till or carbon sequestration.

Mr. JOHNSON. We would agree with that. You know, if you will go back to my testimony, you will see a reference to a number of different practices that are currently in use and the science is robust, it is there, it is accepted. It has pretty much all been generated by USDA. So listing those kinds of things would make some sense.

But, you also want to make sure that you leave some room for new science to develop and new practices to be economical, such

that we can, through offsets, encourage their more rapid adoption if they, in fact, contribute to reducing greenhouse gas emissions.

And there is a long, long list of those. If you will look at page 12 of my testimony, which is probably 10 pages longer than it should have been, you will see a list of the various states that currently participate in the Farmers Union aggregation program and a listing of four different practices that are currently—certainly, at a minimum, you ought to start with the stuff that we know and then leave flexibility.

And, again, we don't want EPA in charge of this. This should be USDA's science. And, we have pretty much all, watching body language, come to that conclusion.

Mrs. DAHLKEMPER. Mr. Garber, do you want to comment on that?

Mr. GARBER. Yes. Might I add—and I have that in my testimony—basically, we believe that USDA needs a lead role in this. We firmly believe that the NRCS has the ability to work on this technology to clarify these different practices so they will qualify and set the standards so they can be verified out in the field.

Mrs. DAHLKEMPER. Okay, thank you, and I yield back.

Did you want to comment on that, Mr. Ruddell?

Mr. RUDELL. Yes. Within the voluntary recovery markets for forest offset projects, it is a fairly short list that I mentioned orally and in my written testimony that includes afforestation, reforestation, managed forest, and also avoided deforestation. So there are ways of being able to avoid emissions through avoiding deforestation and changing land use, but also active sequestration, which would be through afforestation, reforestation and active forest management.

Mrs. DAHLKEMPER. Thank you. Thank you, gentlemen. I yield back.

Mr. WALZ. Thank you. The gentleman from Ohio, Mr. Latta, is recognized for 5 minutes.

Mr. LATTA. Well, thank you, gentlemen and thank you for sticking with us and bearing with us this afternoon and evening.

I would like to go back and revisit what the Secretary said a little earlier, and we are talking about China, and is China is going to abide by what is being recommended that the United States do to our producers here. And the Secretary, if I can paraphrase him, said that he believes that over time—I am not sure if it is a month or 6 months or what it might be—that the Chinese will fall in line and decide that they are going to go to cap-and-trade.

I happen to disagree with that philosophy because everything I have read and everything I have seen from their Ministers said they are not going to do it because they are not going to put themselves behind an eight-ball. One of the Ministers that was quoted in the *Washington Times* in the not-too-distant past said, "You don't know what the problem is. The problem is that we only produce it, you consume it; since you consumed it, you pay for it, since we are not going to. We are just producing it."

And that is the attitude. And I would just like to ask each of you on the panel, do you think that this philosophy that the Chinese have right now, that they are not—I should say that they are going to fall within cap-and-trade, or do you think that they are going to stay outside of it and keep doing what they are doing right now

and be in direct competition to the United States? Which, in my fear is this: When we put a ball and chain around the American producers' legs and say, go start swimming, I don't think it is going to work.

Mr. STALLMAN. I am skeptical that the Chinese will come on to the extent that they need to in terms of implementing a cap-and-trade program. I mean, Exhibit A, as of yesterday, I mean, their Foreign Ministry says they would not be bound by any mandatory caps on their emissions; but oh, by the way, they want the U.S. to reduce our emissions from the 1990 levels by 40 percent by 2020, which is an order of magnitude greater than the 83 percent that we are proposing in Waxman-Markey by 2050.

And by the way, we want you to dedicate one percent of your GDP to help us and other countries become cleaner.

Now, I just think it is unrealistic to think that the Chinese will cooperate to the extent that we would think it is necessary to keep a competitiveness issue from arising.

The other issue is we don't have a lot of leverage, they hold too much of our debt.

Mr. LATTA. That is true.

Mr. RUDDELL. China is developing a clean development mechanism project, which essentially is an offset concept through the Kyoto protocol to be able to trade primarily in the European trading scheme.

And so they have actively developed offset projects, and invested in those to be able to trade in Europe. But, because they are considered to be a Non-Annex I country within Kyoto, I can't expect that they are going to develop their own cap-and-trade system anytime soon.

Mr. LATTA. Thank you. Mr. Garber.

Mr. GARBER. Basically on this subject, I probably answer as a producer and as a crop consultant, in that it is somewhat of a tough situation for us to move out into the arena and hope that the others would follow us in that area. So, it would be pretty much a dangerous situation for us to do.

Mr. LATTA. Thank you.

Mr. YODER. Last November, when I was in Poznań, Poland, I heard with my own ears the Chinese say that they are going to commit to do this, and I heard India say that too, but sometimes talk can be very cheap.

The only way this whole thing will work is if it is a global thing. There is no doubt. You can't tie America's one hand behind their back and expect to compete globally. We can't do it. And that is one reason that there is such an attempt to get a marker down, a template so to speak. So when we go to the meeting, which this Administration has said they want to be a big part of being in a leadership role in Copenhagen, that we get everybody on board. If the United States is the only one doing this, it is not going to work.

Mr. JOHNSON. Yes, as sort of a takeoff on that, I don't know that any of us feel like we are experts in Chinese diplomacy, but it does seem to me that our country is going to Copenhagen. We are going there for the purpose of trying to advance climate change mechanisms around the world.

It seems to me that what the Secretary said about having leverage made some sense; that if you had at least some evidence of doing something in this country, that gives you more standing to argue with the Chinese, the Indians and others.

Now, I don't know anybody, maybe I am misreading everything, but I don't know anybody that really believes that this is not only going to pass the House but the Senate, and be conferenced and signed into law before Copenhagen. That would shock me if that happened.

It seems to me we would have a pretty strong lever if you had a bill through one of the Houses and you could say with a straight face, we are not sure we can get the rest of the way without some concessions from other countries.

It seems to me that that is kind of how this international diplomacy works.

Now, I would hasten to add that if it is in its present form without the ag provisions, it is the wrong lever to be using. And so, as we indicated earlier, we would all oppose that.

Mr. NOBIS. And the dairy industry feels very strongly that climate change legislation, if enacted here, similarly has to be enacted around the world. We have learned, very, very well this year, what happens when we are not competitive or if somebody is not buying our product. A year ago, we exported 12 percent of our dairy production, and we had very good prices.

This year, that has dropped to seven percent, and that is the primary reason the dairy industry is suffering the economic problems it is suffering this year.

Domestic consumption has remained stable. It is that five percentage point drop in export that has devastated our industry. So, in our opinion, it has to be comprehensive or we won't be in business.

Mr. Latta. Right. I appreciate your comments because, again, as you mentioned about how much debt that the Chinese hold of ours—and the last time I checked it was \$767 billion. You throw in the Fannies and the Freddie's, it is over a trillion dollars. And, yes, you diminish your bargaining chips real quick.

But I appreciate your comments, because I think the American people need to know that this is serious and we have to compete. And I appreciate it. Thank you. Thank you, Mr. Chairman.

Mr. WALZ. The gentleman from Pennsylvania is recognized for 5 minutes.

Mr. THOMPSON. Thank you, Chairman.

To change gears just a little bit. Mr. Ruddell, you made a point to say that a primary goal in a U.S. climate bill should be to keep our forest as forests. Now I am hoping you mean that we should encourage our forests to grow as we actively manage them.

Could you elaborate a little bit on your statement, please?

Mr. RUDDELL. Yes. Keeping forests as forests is kind of a principal when we think about putting a climate bill together. We can use carbon markets to do that.

It is important to maintain forests because they provide many different ecosystem services along with climate mitigation. And so, from a climate mitigation perspective, having forests as forests is really important.

I also mentioned that a bill needs to support the concept of avoiding conversion of forests to other land uses, and that is also a project—an offset project type as well. You know, we need to ensure that forests are here, because we rely on them for many things like clean water and biodiversity as well as climate mitigation.

Mr. THOMPSON. Just to follow up—and I would agree in terms of use in keeping forests, in terms of wilderness areas that generally cannot be managed, and because management is so important, the question is should we halt converting more of our Federal lands into wilderness areas?

Mr. RUDELL. Well, that is certainly a policy decision that I am probably not qualified to address.

I think that in terms of a bill, we are talking primarily about private landowners, because there is a private investment issue.

When we talk about public lands, it is important to think about how we manage public lands to ensure that they are healthy.

Healthy forests will also be better forests in terms of mitigating climate and providing the other benefits, ecosystem service benefits.

Wilderness is important in and of itself, but converting all public lands to wilderness would not provide for all of the conservation services along with healthy forests.

Mr. THOMPSON. Actually, and I have a concern, that as we look at what we are talking about, the cost benefits, the benefit of this Waxman bill is about reducing carbon emissions. And at least some of the numbers that I have seen is that where human activity constitutes or contributes less than four percent of CO₂ emissions; wildfires, the number I have seen, is approximately ten percent.

Now I know you are a forester, I know that is your background. Is that in the ballpark of your experience?

Mr. RUDELL. I am not familiar with the numbers, and so I can't comment on that. But, the data shows over the last 10 years, for example, at least in the recent past, that the wildfires are getting worse, not better, or they are a bigger impact on the environment. And that relates mostly to unhealthy forests and the lack of management on those forests.

Mr. THOMPSON. And essentially wilderness areas are unmanaged, left to—

Mr. RUDELL. Yes.

Mr. THOMPSON. Mr. Nobis, one of the biggest issues I have in my area is with my dairy farmers. I come from a long line of dairy farmers. We got out of that business when the Corps of Engineers took the valley where my family farmed, but we still have a lot of farms in Pennsylvania's Fifth District. And throughout Pennsylvania agriculture is our number one industry.

Do you see that they are really suffering now with milk prices the way they are? That is something that just tends to be ongoing.

And given the current state of dairy prices and the cost structure of dairy farm operations, do you think the dairy farmers in this country can really handle the price increases inherent in this piece of legislation as proposed?

Mr. NOBIS. As proposed, no, we couldn't. That is why we testified very strongly that we would have to have some sort of carbon cap-and-trade to try to offset the increased cost.

Mr. THOMPSON. Do you have any projection, does the Federation have any projection as to what percentage of dairy farmers do you think can reasonably be expected to participate and benefit from the crediting system?

Mr. NOBIS. Well, we haven't seen it yet. But as it stands now, the one clear process that would be a credit would be the methane digesters. And that could be a lot of cows, but it will not be a high percentage of dairy farmers. Because as it stands now, for a digester to pay, you need a huge grant to build it, and you need a special deal cut with the electrical power company to give you more than that 3¢ a kilowatt buying it.

So I don't see a lot of people building digesters under the current economic situation.

Mr. THOMPSON. And just real quick, one follow-up question. The average size farm in my district is about 80 head for a dairy operation. For those folks, let's just take the scenario of those folks who do qualify for the credit, and so we are just dealing with the ones who don't. What do you think the economic future is for those farms?

Mr. NOBIS. Not very bright, to be real honest, unless there is some other system in place that they can make up that shortfall in revenue, that is not going to cover their increased input costs.

Mr. THOMPSON. Okay, and thank you.

Mr. WALZ. The gentlewoman from Wyoming is recognized for 5 minutes.

Mrs. LUMMIS. Thank you, Mr. Chairman. I neglected to mention earlier that I have an opening statement that I would like to submit for the record.

Mr. WALZ. Without objection.

Mrs. LUMMIS. Thank you. And I would like to add my compliments to those of you who have stayed with us this afternoon.

I would like to ask, Mr. Stallman, without ag offsets, do you believe this bill amounts to the equivalent of a huge cost increase to the American farmer and rancher?

Mr. STALLMAN. Yes, absolutely.

Mrs. LUMMIS. Anyone else have any different response to that? Thank you. I will assume that means that you uniformly feel that way, and of course I do too.

I wanted to mention also that this morning the Wyoming Stock Growers Association joined the list of fellow farmers and ranchers around this country that are opposed to this bill, and see only increases in their costs of operation as opposed to real benefits to them. And particularly so for those of us who have livestock producers who graze on public lands.

I have a question regarding that. Mr. Stallman, can you talk to us a little bit about why western states with large Federal lands would have a limited opportunity to use offsets?

Mr. STALLMAN. Well, grazing on public lands, I doubt that a structure would be in place, like there is for a landowner, to create a long-term program that would allow for offsets. Not to mention the fact that for a lot of western lands there would probably be lim-

ited opportunities for sequestration to start with, just because the forage load is very light compared to areas that have more rainfall, and the western areas don't really have enough rainfall to grow a lot of forage or create a lot of plant mass which would sequester the carbon.

Mrs. LUMMIS. Thank you. And I would like to ask, Mr. Johnson, how would you describe the difference between a carbon credit, as you envision it, and a derivative.

And I am getting to the—my point is this. You know, we have seen in the financial markets the creation of financial products that didn't exist 10 years ago, things like credit default swaps and collateralized mortgage obligations that were taken to a different level than we previously saw.

What is to protect the American consumer by way of the utilities and entities that will have to buy these carbon credits, from the creation of an artificial financial product like a derivative, like a credit default swap, that went horribly awry and now has cost the American consumer billions of dollars by way of the TARP program?

Mr. JOHNSON. You know, actually that same issue could potentially be an issue in any market.

And so I presume that if this Committee is hoping to weigh in with changes to the bill that is currently under consideration, that that would be one of the things that you might weigh in on.

I would point out that a carbon credit offset is more like a bushel of wheat than it is like a derivative. And by that I mean what you are selling is essentially a commodity, it is undifferentiated, it is a ton is a ton is a ton, it doesn't matter. A ton of CO₂, whether it is in North Dakota or Oklahoma, you take it out of the atmosphere, the science suggests that it has the same impact on the climate. And so it is much more like a commodity than it is like some of the credit default swaps, the derivatives, *et cetera, et cetera*.

And so to that point, if you are concerned about those sort of market shenanigans, as I detect from the tone of your question, you ought to prevent those sorts of actions. And I have read enough about what the Chairman of the Committee has been saying to believe that he has that concern pretty deeply. And so it certainly could apply here like it does anywhere else in any other commodity market.

Mrs. LUMMIS. Thank you, Mr. Johnson. I share our Chairman's concerns.

And, Mr. Yoder, with regard to very small ethanol plants around the country, I know there is a threshold below which the EPA is not expected to get involved in regulation in this bill. However, there is an opportunity for emitters of 25,000 metric tons to be regulated by the EPA. And that is a fairly small threshold. A small ethanol plant could be regulated under that standard.

Do you have the same concern that I do?

Mr. YODER. No, it is true. I don't know whether it is 20,000 or 25,000 and something like that, it could be regulated.

But there are some technologies that are being developed now. I know in my own state, in Greenville, Ohio, they are actually coming up with a program with respect to where they are actually se-

questering that carbon that is captured from the ethanol plant below the ground, deep in the ground in the City of Greenville.

So there are other possibilities they are working on. In Ohio, also, there is a company called Univenture that is actually taking some of those greenhouse gases, that CO₂, capturing it and putting it into long tubes of buildings and growing algae and using it up completely.

So technology, as the Secretary said, is going to be a big component of this.

They will be subject—there will be some subject to those regulations, but we will just have to make sure technology keeps up with that.

Mrs. LUMMIS. Well, gentlemen, I want to thank you.

My time is up, but I share your—you have educated me on a number of things, and I am deeply grateful. Thank you.

Mr. WALZ. The gentleman from Louisiana is recognized for 5 minutes.

Mr. CASSIDY. Thank you, thank you. You all have wisdom. Believe me, I sure wish that some of you had had input with some of your ideas into this bill. It would make me feel a lot better about it. So first let me just compliment you. Bingo.

Second, Mr. Johnson, I think it was you that said something—I have been kind of conferring with staff ever since—that this bill does not necessarily—that farms are not a covered entity. And yet, I was reading my CRS reports—and, Mr. Garber, hello from a fellow Louisianan.

Mr. GARBER. How do you do?

Mr. CASSIDY. And, Mr. Stallman, I was reading about how rice produces methane. And in one of the tables here, it says here that a ton of methane is equal to 25 tons of carbon dioxide. And so I asked staff: Does that mean that that my rice farmers could be affected?

And they said probably not at the current level, but if you look on, section—oh, I had it written down, and now I lost it—722—it says in 2020 that the Administrator, the EPA Administrator, would be allowed to decrease the threshold for something to be considered a covered entity from 25 tons to—by 60 percent. That would decrease it to 10 tons.

I am maybe getting my math wrong, but with this conversion of 25 tons of carbon dioxide as 1 ton of methane, that suddenly starts bringing in rice farmers, I am told.

Now, I don't understand this bill yet. In fact, Mr. Stallman, when you said you couldn't vote for it until you all did an analysis, I said, boy, wouldn't it be great if the Federal Government felt the same way?

But that said, what are your thoughts about this potential to bring in rice farmers by the year 2020?

Mr. STALLMAN. Well, being a rice producer, there has been concern expressed, I don't know, decades ago, about the degree of rice production in the world and what that meant for methane production as soon as there started to be a concern about global warming.

There is not a lot we can do about that because that is the interaction between the water and the biomass. Basically, there are some techniques to reduce that, but I would have—well, in my tes-

timony, I pointed out that not all agricultural producers will have the same opportunities or be treated the same, even under an agricultural offset program or under some regulatory scheme, because livestock producers obviously have methane-emission issues, rice producers do.

Other producers don't have the opportunity to sequester carbon. So there is a wide variation among agricultural commodities as to what the potential is either for regulation or for actually sequestering carbon and providing offsets.

I would note in section 733 of the Energy and Committee report, though, they did offer one opportunity for rice farmers to provide offsets, and that was in the reduction in the frequency and duration of flooding of rice paddies. Now, frankly, being a rice producer, I am not sure how that works, because every time my rice has been deprived of water, it hasn't produced very well. But regardless, at least the Committee did acknowledge there was an opportunity there.

Mr. CASSIDY. Mr. Garber.

Mr. GARBER. The methane is a natural occurrence, because when a rice crop is flooded, the plant begins to obtain its oxygen through the leaves and then, of course, transpires everything back out into the atmosphere. So this is what is going to occur no matter what we want to do.

That relates to the flooding occurrence that Bob just referred to there, in that if you can pull it out of the flood, then you may not have that occurrence of transpiration into there, the CO₂.

But the best yields come with the flood, the best weed control comes with the flood. So we would definitely have to have a complete change in the culture of rice production into a dryland-type culture, and that complicates it tremendously. So we are going to be subject to that at that point, yes.

Mr. CASSIDY. Right. And so what I learned, speaking with staff, this bill doesn't statutorily preclude you guys being brought in as covered entities; it is just right now you don't make the threshold.

But what I am hearing from you is that it is reasonable, given this conversion factor, and also reasonable to consider that in 2020 she can decrease or he can decrease by 60 percent, that at some point you would be brought in, at which point your options with current farming techniques would be limited.

Mr. GARBER. I had attended a briefing by the Subcommittee when they were going to submit this bill. They have had it for agriculture, and I think most of the representatives of these gentlemen were there.

The general principal that they presented to us was that agriculture is not mentioned in it, but it is specifically written to where we won't be affected by it. And that was the premise which they presented to us that day.

Mr. CASSIDY. And the staff is telling me it is only because of the threshold they set. But if you take 2020, and you decrease it by 60 percent, then all of a sudden you guys are threatened to be covered entities. Now, that may be one person's interpretation.

Mr. GARBER. That may be very much possible.

Mr. CASSIDY. The last thing I will say, I think we all agree that it would be nice to decrease carbon, and everyone is speaking about

how we have to have a bill. But I have to say from my personal view, that it—in fact, I know what is worse, a bad bill or no bill. I think a bad bill is worse than no bill.

But thank you, again, for your input.

The CHAIRMAN [presiding.] I thank the gentleman. The gentlelady from Ohio.

Mrs. SCHMIDT. Thank you, Mr. Chairman. I have been kind of frustrated today, not by you gentlemen, you have put some light on a very important situation, because we are about to embark on changing the economic landscape of the United States with this potential bill. And while I have to be concerned with the economy of the United States, my personal concern is with the State of Ohio and, of course, with the folks in the Second Congressional District, so I am really going to—it is one question, but I want to talk for a minute first.

And so my question really is to Mr. Yoder.

But looking at the bill, and looking at Ohio and recognizing that we are a coal-producing state and that our energy comes from coal, and recognizing that in this bill the energy costs for coal are going to go up significantly, recognizing that there is a direct correlation between energy costs and farming, I think that one can calculate that the cost of production of farming is going to go up. And whether you get an offset for that or not, the cost of producing your corn is going to go up.

Mr. Vilsack was trying to be very upbeat and Pollyannic in his views and tried to talk about the fact that we are going to be innovative and create new opportunities. But knowing the landscape of Ohio and the difficulties that we have faced with the last recession—not even coming out of it and coming into the current recession—knowing that whenever you change a paradigm, you have winners and losers in that paradigm. Mr. Yoder, the challenge is not just what farmers will face in this bill, but that all people in the State of Ohio will face. Do you think Ohio is going to come out a net winner or a net loser?

Mr. YODER. Well, Madam Congresswoman, that will depend. The devil will be in the details.

There is potential for Ohio farmers to come out very good. I know in your district, your types of soils, there is a great chance to sequester additional carbon, or your farms could participate in a carbon market.

But I am not sure you were here when I said before, one of the things that makes it so imperative for the State of Ohio, which gets the majority of our electricity from coal, is we have to produce a robust amount and plentiful amount of low-cost credits so that those burners of coal can go ahead and remain in business. Because the shock to the community and the shock to the State of Ohio would be tremendous if electricity went up 50 percent, so to speak.

We know, we know good and well that farmers are going to be faced with higher input costs. There is no doubt. We know that the only way we are going to be able to survive is have some kind of mechanism to offset those additional costs.

And so if we are going to go down this road, then it is imperative that we have to have agricultural offsets. That is the bottom line, or farmers are going to be hurting really bad.

Mrs. SCHMIDT. And thank you, Mr. Yoder, because the way this bill is written, there is not a real clear direction that we are going to have the offsets that Ohio is going to need to remain competitive, not just in the United States but in the world. And that is what really concerns me.

The other thing, for all the gentlemen here, I submitted two pieces of letters, one from the American Frozen Food Institute, and for the Food Industry Environmental Council. And in both of those letters, it talked about the ramifications of this bill or the impact of this bill, that food costs will go up for the American consumer. So whether you are a farmer or not a farmer, all of us are consumers and go to the grocery store to buy some part of our groceries.

Is that going to help or hurt the families in the United States, up or down? If the food costs go up, is that going to help or hurt the families? Yes or no, to all of you.

Mr. STALLMAN. Well, it is definitely going to hurt. Our analysis shows that food costs would increase by about \$13 billion if you assume kind of the 2050 scenario in the Waxman-Markey bill and fast-forward it to 2012.

So an increase, a definite increase, it will hurt them. And that is under the rosy scenario of the EPA analysis of the Waxman-Markey bill.

Mrs. SCHMIDT. We are running short of time. If you guys can just do a yes or no, because I know the Chairman is going to get anxious with me.

Mr. RUDELL. I will defer to the other panelists. I haven't studied that.

Mrs. SCHMIDT. All right.

Mr. GARBER. Our indication is if consumer costs go up, then it definitely hurts their pocketbook.

Mrs. SCHMIDT. Mr. Yoder.

Mr. YODER. The costs could be greatly curtailed if we have offsets to keep the cost of our raw products down. If we don't have offsets, the public will get much higher food prices, that is for sure.

Mr. JOHNSON. I agree.

Mr. NOBIS. So do I.

Mrs. SCHMIDT. Thank you. Thank you, Mr. Chairman. And I am 20 seconds beyond.

The CHAIRMAN. I thank the gentlelady, and I thank the panel.

I apologize for having to miss most of this. I was at a meeting that was a little bit important, and I won't belabor this.

We have some folks that are on the next panel, and this has been going on quite a while.

So I was getting reports on what you guys were up to while I was in the meeting, so I have been kept up a little bit on what you have been saying. So thank you very much for being with us, for your patience and waiting. And there is a lot of interest in this topic, obviously, and it has taken a little longer than we expected.

Mr. Lucas told me he thought this would be a short hearing today. So I don't know what he considers a long hearing. Thank you very much

And we will call the next panel, the last panel of the day.

So we welcome our final panel: Mr. Glenn English, CEO of the National Rural Electric Cooperative Association, and Mr. Ford West, the President of The Fertilizer Institute.

So, gentlemen, thank you very much for your patience. You have been hanging around here quite a while. I hope you haven't been worn out so you still know what you need to tell us.

Welcome to the Committee. We appreciate your being here. Your full statements will be made part of the record. You can feel free to summarize it at your discretion.

Mr. English, do you want to start?

STATEMENT OF HON. GLENN ENGLISH, CEO, NATIONAL RURAL ELECTRIC COOPERATIVE ASSOCIATION, ARLINGTON, VA

Mr. ENGLISH. Thank you very much, Mr. Chairman. I appreciate it, and let me just say first of all, I am delighted to be back at this Committee.

I spent nearly 20 years in this Committee back some years ago as Mr. Lucas' predecessor, and so this has always been home. And it is a delight to be here to talk about electric cooperatives and to talk about the American Clean Energy and Security Act.

And let me just start with saying, of course, America's electric cooperatives, over 900 electric cooperatives scattered across this country in 47 states; 42 million consumers all across this nation are served by electric cooperatives. And we are not-for-profit.

That means your constituents own those electric cooperatives, own them as utilities. And certainly as not-for-profits, we do our best to keep those electric bills as low as we possibly can, and that is what I am going to be talking about here today. And to also make sure electric cooperatives have enough electric power to meet those members' needs and we are able to grow in this nation.

First of all, let me say that I testified before the Energy and Commerce Committee over 2 months ago that, in fact, electric cooperatives felt that we needed an energy bill, we needed a bill.

And let me say the reason why is because of the Supreme Court action in 2007, which instructed the Environmental Protection Agency to determine whether carbon was an endangerment to the health of the American people. And, of course, we are now into the process of that happening.

Now, as I understand it—and I am no expert on the Clean Air Act, I was here when it was passed in 1990. I don't remember anything said about carbon at the time.

Mr. Chairman, you were here as well. I don't recall anything said about carbon when we voted. And I voted for that legislation. You probably did, too.

But I do know that the former Chairman of the Energy and Commerce Committee, Chairman Dingell, has made the observation that if we try to regulate carbon under the Clean Air Act, we are going to have a glorious mess. And we wholeheartedly agree with him.

It is a slow drip-by-drip torture that we would undergo as a nation as that legislation, according to what attorneys tell me, takes on an automatic approach. It gets beyond the control of the Administrator of the EPA. It even gets beyond the control of the President of the United States and the Congress. It gets on automatic pilot as to what takes place.

So it is not a pretty thing, and we need to fix that problem. And that is what I urge the Committee to do, fix the problem. But we need to fix the problem and only that problem. It needs to be something that is affordable, something that is flexible, and something that is sustainable.

And what I mean by sustainable, it needs to be politically sustainable. That means the American people have to accept it and be able to live with it, year in and year out. Not just the first year or 2, but for the next decade and for the next 40 or 50 years. It has got to stand that test of time.

And certainly from the draft that was initially presented, there have been many improvements that have been made, and there is no question that there are still improvements that need to be made in this legislation. It has, still, a long ways to go in our opinion. But we would not be raising serious concerns, not to the level that we are raising today, if it were not for an issue of fairness, of fairness, Mr. Chairman.

We would, in fact, not be objecting to moving this bill forward if it were not for those levels of concern of fairness. We would recognize the legislative process that as you move along, you have to make these changes and make these improvements that are still needed in the bill.

The fairness is not something that we can accept. Fairness is not something that we can simply turn a blind eye toward. In this case, the allowances that are allowed under the bill, the allowances that under the original concept were supposed to be there to help those that were carbon-based, that had carbon-based fuels, whether it is coal, natural gas, whatever it may be, to reduce what is going to be a rather severe shock in their electric bills—and that was the original concept and idea of those allowances.

And it seemed to us that those allowances should be focused on those people who have the greatest need, not on the utilities, on people. Because that is what this is really about is people and their electric bill and what kind of economic impact that this is going to have, their ability to grow economically in this country.

And certainly those of us who live in rural areas that rely on rural development, who have hopes for rural development, we depend on reliable, affordable, electric power to be able to carry that out.

Well, Mr. Chairman, what we ended up with was a piece of legislation that has wide disparities, does not focus those allowances on the people who need them the most. In some cases, those who need it the least get the most.

Let me give you an example. For example, the State of Kentucky really gets the fewest allowances from a statewide standpoint. The best we can tell, the best that the Energy Information Agency can tell, they get the least, about 59 percent of what their needs are going to be.

But the fortunate folks in Washington, not to their fault, they didn't ask for this, but they are getting blessed. They are one of the big receivers. In fact, they are going to get 3,700 percent of their needs met for the allowances, a huge windfall for them.

Now, we have electric cooperatives that are catching it both ways, folks. We have many that are going to be well short of what their needs are. We have others that are going to be in excess of what their needs are.

But we all understand these are electric co-op members. We all recognize and understand that we have to stick together and work together. And I know that many of those folks from some of those areas that are neediest for these allowances have been some of the first to speak up and defend those who have been fighting to protect the PMAs over the last 20 years. Some of those that have been defending them most vigorously have come from areas, from other parts of the country that had no hydro whatsoever.

Because we have learned, under the cooperative principles, that people have to work together, stick together and look after each other. And that is what they have done. And in this case, we find that electric co-op members who are rallying to their colleagues, they are getting shortchanged through this legislation.

Well, Mr. Chairman, as we move forward here we are suggesting that this legislation should not be about winners and losers. We are suggesting that this legislation shouldn't be a situation of one region of the country *versus* another. We are suggesting this shouldn't be a case of Democrats *versus* Republicans.

What this ought to be is about the American people and making sure that all of our citizens have affordable electricity, affordable electricity, trying to make sure that the needs of all of our citizens are met. Most of these folks didn't have any say as to what fuel was used to generate their electric power. Their fuel was determined from what region of the country they came from. In some cases, Mr. Chairman, it was the United States Government itself who dictated what fuel they would have to use.

This goes back many years for us old-timers, to 1978. We had something called the Fuel Use Act down in our home State of Oklahoma. Mr. Lucas, I know, remembers this. Oklahoma, we had natural gas, in some cases a mile away from the generating plants. And we were using natural gas like crazy. But all of a sudden the United States Government decided we had a shortage of natural gas. So the United States Government came in, passed a law called the Fuel Use Act that required all of those gas-fired utilities down through the State of Oklahoma and many other parts of the country to switch to coal.

We had to switch to coal. We had to start shipping coal from Wyoming to burn in those generating plants in Oklahoma, Louisiana, Texas, and elsewhere around the country. We had $\frac{3}{4}$ of all the power plants that were built for electric cooperatives built during the 10 years of the Fuel Use Act in which we had a case in which they had to—either planning, or building or converting to coal-fired generation during that period.

So those people shouldn't be penalized because they met those requirements. They obeyed what the Federal Government said and they carried it out.

They ought to be treated in a way that we try to lessen the impact on their electric bills and continue to make their electric power affordable to them. That is fairness, that is what is right, and I think that is what most citizens in this country expect to be done.

Mr. Chairman, I would also point out that some states get well over 100 percent of the allowances they need. It is not fair that any state get more than 100 percent, that is just not right. Just not right.

And I would also say one other thing, Mr. Chairman, that no Member of Congress should be asked to vote for a bill that would require them to take allowances away from their own constituents and give it to constituents in another region of the country. That is not right either.

So, Mr. Chairman, what we are urging here is fairness. What we are urging is that all of our citizens be looked upon as deserving of affordable electric power, that we recognize and understand we are making a change in policy and that some people are going to be very fortunate.

They are not going to see their electric bill soar higher, because they are using hydro. They are not going to see their electric bills soar higher because they may get their power from a nuclear power plant.

But there are many others that are going to see their electric bill soar higher, much, much higher because in fact, unfortunately, they get their power from a fossil-based fuel.

Mr. Chairman, I hope this Committee will join with us and help us get some fairness for all American people, no matter what region of the country they are from and no matter what their power source might be.

Thank you very much.

[The prepared statement of Mr. English follows:]

PREPARED STATEMENT HON. GLENN ENGLISH, CEO, NATIONAL RURAL ELECTRIC COOPERATIVE ASSOCIATION, ARLINGTON, VA

Introduction

Thank you for inviting me to provide the views of electric cooperatives on pending climate change legislation in the House of Representatives. The National Rural Electric Cooperative Association (NRECA) is the not-for-profit, national service organization representing nearly 930 not-for-profit, member-owned rural electric cooperative systems, which serve 42 million consumers in 47 states. NRECA estimates that cooperatives own and maintain 2.5 million miles, or 42 percent, of the nation's electric distribution lines covering $\frac{3}{4}$ of the nation's landmass. Cooperatives serve approximately 18 million businesses, homes, farms and other establishments in 2,500 of the nation's 3,141 counties.

Cooperatives still average fewer than seven customers per mile of electric distribution line, the lowest density in the industry. Low population densities, together with the issues of traversing vast expanses of remote and often rugged topography, present unique economic and engineering challenges for electric cooperatives. As well, many co-op consumers are facing their own economic challenges. The service territory average household income for 786 electric co-ops (93 percent) falls below the U.S. average household income of \$71,212. The service territory average household income for all electric co-ops is \$61,416.

NRECA's objective is to help Congress develop and pass an affordable, workable, and sustainable piece of legislation to address the nation's energy and climate change objectives. Maintaining the affordability of electricity is the principle against which NRECA will judge all climate change and energy legislation.

Properly Structuring a Climate Change Cap-and-Trade Program

We appreciate very much the time being taken by this Committee to gain a deeper understanding of the issues surrounding climate change legislation. The Energy and Commerce Committee has been working on climate change legislation for several years, and reported H.R. 2454, the American Clean Energy and Security Act (ACES) of 2009, on May 21. It is a complicated piece of legislation that deserves significant analysis by Congress and affected stakeholders. This hearing is an important part of that process and we compliment the Committee for shining a spotlight on issues important to agriculture and rural America.

My comments will focus on one major objective: keeping electricity bills affordable for all Americans while achieving long-term emissions reductions. The purpose of this legislation should be to establish a national greenhouse gas policy, and should not be used for a variety of other purposes. Properly structuring a climate policy can achieve the necessary emissions reductions, and should do so using least-cost alternatives to keep costs affordable for consumers.

The legislation reported by the Energy and Commerce Committee has moved in that direction. However, there are still provisions in the legislation that will increase costs on consumers more than is necessary to achieve the emissions reductions required by the bill. At this time, NRECA is not able to support the bill. However, we look forward to working with any and all interested Members to improve the legislation so that it provides a national policy that reduces greenhouse gas emissions in a simple, affordable, and flexible manner.

Following are some specific areas that NRECA would like to see improved in the legislation.

The Near-Term Cap Should Be Amended To Protect Consumers

The legislation's emission reduction levels and timelines are overly aggressive, particularly in the early years of the program. The bill's requirement to reduce emissions by 17 percent below 2005 emissions levels by 2020 is extremely ambitious, and we believe a very costly short term requirement. It is very important to point out that this "17 percent cut" is actually closer to a 24 percent cut when compared to the expected baseline of emissions forecast by the Energy Information Administration (EIA) for 2020. According to EIA data, emissions in 2020 are expected to be approximately seven percent above 2005 levels. Therefore, the short term goal for the first 8 years of the legislation is to de-carbonize the nation's economy by approximately $\frac{1}{4}$.

In the short run, there are relatively few choices to achieve reductions of greenhouse gas emissions. Outside of energy efficiency improvements, switching from coal to natural gas is the most likely scenario to comply with the caps in the bill, with some additional renewable energy being added to the generation mix for the utility sector. Congress and the Administration will have to make Federal investments and solve considerable policy challenges if energy efficiency, renewable electricity and natural gas are to be adequate baseload resources. Other sectors of the economy covered by the cap have even fewer options for reducing emissions. In fact, most analysis of cap-and-trade programs have determined that the utility sector will make reductions beyond its proportionate share because other sectors have few options to achieve the reductions required.

NRECA believes long-term emissions reductions can be achieved if there is sufficient new research, development, and deployment of new technologies that reduce or avoid emissions of greenhouse gases. In the utility sector, this research program must include renewable energy, nuclear power, carbon capture and sequestration, energy efficiency, and other technologies that will give us the tools necessary to accomplish the long-term reduction goals.

To address the short-term problem with the caps in the bill, NRECA recommends that the reduction requirements be adjusted during the first 15 years of the program to more accurately reflect the expected availability of technology. Even a 14 percent reduction by 2020 (from 2005 levels—or a 21 percent cut compared to the baseline), as proposed by President Obama and being discussed by some Members of the House, will be extremely challenging to meet and result in more and more natural gas being used for electricity generation. The Senate recognized this challenge last year when the Lieberman-Warner bill failed to get the votes to invoke cloture, and several Senators from both political parties expressed concern that the short term caps could not be met in a cost-effective manner.

NRECA is also concerned that the Environmental Protection Agency (EPA) and other agencies which will administer this bill will not have sufficient time to develop all the rules and regulations that will need to be developed between the time climate legislation is signed into law and the first year of the program, currently slated for 2012. Within the legislation, there are countless new requirements on Federal

agencies, particularly the EPA. Even with the best leadership, the best of intentions and additional resources, experience teaches us that Federal agencies have significant difficulty meeting congressionally-imposed deadlines that are overly aggressive.

We have no intention of “kicking the can down the road” simply for the sake of delay. I have testified today and before other committees that NRECA supports enacting affordable, flexible legislation to address climate change because the alternative of leaving carbon regulation to the EPA using only the existing Clean Air Act would create a “glorious mess,” to quote the Dean of the House of Representatives, Rep. John Dingell. Our intention is to provide Federal agencies with sufficient time to develop the rules necessary to make as smooth a transition as possible to a lower carbon economy.

The Allowance Allocation Methodology Protects Some Consumers at the Expense of Others

The bill includes an allowance allocation methodology for the utility sector that unfortunately protects some consumers at the expense of other consumers. This methodology represents a political compromise among the investor-owned utilities that belong to the Edison Electric Institute (EEI). As a former Member of this Committee, I understand very well the need for compromise to achieve common objectives. However, the deal that was reached by EEI’s member companies is not in the best interest of all consumers because it creates winners and losers in different regions of the country.

Before delving deeply into the allocation methodology issues I want to stress how important free allowances are to electricity consumers, especially those consumers who are the member-owners of electric cooperatives. The alternative, auctioning allowances to the highest bidders, only serves to increase costs for consumers without achieving any additional emissions reductions or other environmental benefits. As not-for-profit, consumer-owned utilities, co-ops would have to pass along all those additional costs to consumers, while freely allocating allowances directly avoids those costs going to consumers. On this point, all three major utility trade associations agree: allowances provided to local distribution companies will help mitigate unnecessary costs to electricity consumers while still achieving the emissions reductions required by the cap. If the bill that has come out of the Energy and Commerce Committee had included a complete auction, NRECA would be in outright opposition to the bill instead of working to improve its provisions.

NRECA recommends that the bill allocate emission allowances to local distribution cooperatives (LDCs) based upon the carbon content of the fuel used to produce the electricity sold by the LDCs, and in proportion to the utility sector’s share of emissions. This methodology harmonizes carbon allowances with carbon emissions, and protects those consumers most exposed to the costs of achieving emissions reductions.

Based on the analysis we have conducted so far on the legislation (and we will continue to conduct more data analysis), we have concluded that regions of the country with heavier reliance on coal will receive a disproportionately low share of the allowances, while regions of the country with more reliance on nuclear, hydro, and natural gas for power will receive a disproportionately high share of the allowances. We have determined approximately how many allowances co-ops in every state will receive, as a proportion of their share of the emissions cap in 2012.

Analyzing the allowance allocation in relation to each utility’s proportionate share of the cap is the only rational way to evaluate whether allowances are being used to maximize the protection of consumers. If a utility is receiving more than 100 percent of its share of the cap, then it can sell the excess allowances and that utility’s consumers could see a rate cut. Most utilities across the country will not be so lucky, but the formula does in fact provide some utilities with well over 100 percent of their share of the cap. Other utilities consumers do not fare so well.

The memo developed by Chairman Waxman and Chairman Markey prior to the Energy and Commerce mark-up that outlined the proposed allowance allocation methodology states that utilities will receive allowances “representing 90 percent of current utility emissions.” Unfortunately, most electric cooperatives will receive nowhere near 90 percent of our share of the cap (which is three percent below 2005 emissions levels and even further below current emissions).

According to our analysis, cooperatives in Minnesota will receive approximately 61 percent of their proportionate share of the cap in 2012. Co-op consumers in Kentucky will receive 59 percent of their share of the cap; Illinois, 61 percent; Arkansas, 62 percent; Ohio, 63 percent. Mr. Chairman, the good news is the co-op consumers in your district do slightly better than the state’s average, receiving 62 percent. But co-op consumers in Chairman Oberstar’s district are back at 61 percent. Chairman Obey’s co-op consumers would also receive 61 percent of their share of the cap, while

Chairman Skelton's co-op consumers would receive 63 percent, Chairman Spratt's co-op consumers would receive 65 percent, Chairman Thompson's co-op consumers would receive 68 percent, and Chairman Gordon's co-op consumers would receive about 74 percent of their share of the cap. Other committee chairmen's districts do not have any significant cooperative presence.

It is not just Democratic co-op districts that get a disproportionately low share of the allowances. Co-op consumers in Minority Leader Boehner's district would receive 63 percent of their share; Ranking Member Lucas does a little better at 71 percent.

Even on this Committee, there are significant variations depending on the carbon intensity of the cooperatives in your districts. The following table summarizes our best analysis of the allocations to cooperatives as a percentage of their share of the cap in each Congressional district represented on this Committee:

Democrats	Republicans
Holden (PA)—no co-ops	Lucas (OK)—71%
McIntyre (NC)—97%	Goodlatte (VA)—82%
Boswell (IA) 73%	Moran (KS)—72%
Baca (CA)—no coops	Johnson (IL)—64%
Cardoza (CA)—no coops	Graves (MO)—64%
Scott (GA)—88%	Rogers (AL)—68%
Marshall (GA)—78%	King (IA)—72%
Herseth (SD)—68%	Neugebauer (TX)—74%
Cuellar (TX)—67%	Conaway (TX)—67%
Costa (CA)—no coops	Fortenberry (NE)—65%
Ellsworth (IN)—62%	Schmidt (OH)—63%
Walz (MN)—62%	Smith (NE)—67%
Kagen (WI)—64%	Latta (OH)—63%
Schrader (OR)—3,300 %	Roe (TN)—73%
Halvorson (IL)—66%	Luetkemeyer (MO)—64%
Dahlkemper (PA)—109%	Thompson (PA)—109%
Massa (NY)—227%	Cassidy (LA)—67%
Bright (AL)—65%	Lummis (WY)—71%
Markey (CO)—66%	
Kratovil (MD)—81%	
Schauer (MI)—66%	
Kissell (NC)—98%	
Bocchieri (OH)—62%	
Pomeroy (ND)—67%	
Childers (MS)—74%	
Minnick (ID)—3,400%	

Comparing these cooperative consumers from the rural heartland and southern parts of this country to consumers of utilities in other regions demonstrates the disparity created by the formula in the bill. According to our analysis, several utilities will receive more than 100 percent of their share of the cap. For example, Southern California Edison will receive 144 percent of their share of the 2012 cap; Public Service Electric and Gas Company (PSE&G) in New Jersey will receive 132 percent; Consolidated Edison in New York will receive 100 percent; and Pacific Gas & Electric in California will receive 181 percent of their share.

This is not a co-op *versus* investor-owned utility issue. It is not a Democratic *versus* Republican issue. This is a consumer issue, an affordability issue, and an issue of basic fairness. Some co-ops receive more than 100 percent as well, and some IOUs receive disproportionately low allowance shares too. For example, in the Energy and Commerce Committee hearing this week, David Sokol of Mid-American Energy (which is a holding company with two utilities serving ten states) testified that his utilities would receive approximately 50 percent of their share of the cap. Similarly, according to our analysis, IOUs in Indiana (the most coal-intensive state) would receive approximately 60 percent of their share. Similar examples can be found among municipal utilities as well.

My point is that we should be protecting utility consumers from unnecessary costs under the cap-and-trade system, and not rewarding others for some other rationale not related to reducing carbon emissions.

We have attempted to determine where the emission allowances provided to utilities will go on a state-by-state basis, but unfortunately the data does not appear to be available to conduct that type of analysis with a high degree of accuracy. Data from the Energy Information Administration (EIA), on which we have relied heavily

for our analysis, is not available for the state-by-state fuel mix for electricity sold at retail in each state. EIA has data for emissions associated with electricity generated in each state, but because some states are net importers of power, and others are net exporters of power, conducting analysis based on the locations of generating plants does not approximate where allowances will go under the formula in the bill.

If this allocation formula is unfair, it is appropriate to ask why and what would be a fair formula. NRECA believes all emission allowances should be allocated to local distribution companies based on the emissions attributable to the production of the electricity sold at retail. The allowances available to LDCs to protect consumers are distributed based on a formula that provides 50 percent to utilities based on their share of all electricity sales and 50 percent to utilities based on their share of CO₂ emissions associated with the production of the electricity sold at retail. The bill further reduces the effectiveness of allowances by providing allowances to merchant generators of electricity, thereby diluting the allowances available to LDCs.

Proponents of the 50–50 split in the bill argue that the allowances distributed based solely on sales are necessary to compensate consumers for higher costs they have faced because of past investment decisions by their utilities prior to carbon controls being imposed. If we are going to use this legislation to compensate people for past actions, rather than dealing solely with carbon reduction, I can assure you there will be a long line out the door of the Capitol stretching as far as the eye can see. Instead, this legislation must be limited to addressing the carbon issue in a manner that holds down the cost as much as possible on the people who will have to face the costs of this bill. Consumers getting power from non-CO₂ emitting sources will not face the cost of reducing CO₂ emissions. The cost of their power will not increase by the additional cost of addressing carbon emissions while other consumers' bills will increase as their utilities make efforts to reduce their CO₂ emissions. But this bill goes even further and actually rewards those consumers with allowances they can sell to consumers in rural Minnesota or rural Oklahoma, forcing consumers in carbon-intensive districts to subsidize consumers in non-carbon-intensive districts. Mr. Chairman, I just do not believe that is fair and it needs to be corrected before this legislation moves further.

Finally, NRECA believes the free allocation of allowances should not be phased out in favor of an auction, as the bill currently does between 2025 and 2029. Auctioning is a bad idea in 2009, will continue to be a bad idea in 2012, and the simple passage of time until 2030 will not make it a better idea.

Promote the Use of Offsets and Biomass

H.R. 2454 provides flexibility to cooperatives in reducing their emissions through the inclusion of offset provisions that allow a portion of the compliance obligation to be met with domestic and international offset credits *in lieu of* emission allowances. Nationally, capped sources can use up to 2 billion metric tons of emission credits annually with half from domestic sources and up to 1.5 billion metric tons from international offset projects if sufficient domestic offsets are unavailable. In the early years, a covered entity can satisfy approximately 30 percent of its compliance obligation with offset credits, split evenly between domestic and international offset credits.

The addition of up to two billion offset credits that can be used to satisfy compliance obligations to the pool of annual emission allowances is extremely important in controlling the costs of the cap-and-trade program and provides regulatory flexibility to cooperatives in reducing emissions over the near to mid term as new, cost-effective, low-carbon technologies are developed.

Robust, workable domestic and international offset programs are critical to protecting American consumers, particularly in the early years of a climate program. EPA, CBO, and others have concluded that the use of domestic and international offsets will decrease the cost of allowances from 70 to 100 percent. Likewise, if offsets are not available, the allowance price doubles or triples. And while the availability of quality international offsets in the early years is highly uncertain (CBO and David Montgomery), U.S. agriculture and forestry can provide domestic offsets readily with the appropriate administrative framework.

NRECA recommends that Congress modify the offset provisions so that a domestic offset credit program can be quickly established and implemented. Authority for a domestic offset credit program as part of a national cap-and-trade program should be assigned to USDA in consultation with EPA. To expedite implementation, offset provisions should include an initial list of qualifying project types for which USDA can rapidly set standard protocols. Additionally, USDA should explore the feasibility of allowing producers to register offset credits as part of its farm programs. Con-

gress should also strengthen and simplify provisions in the bill that manage project-specific offset risks, *inter alia*, making the program seamless and protecting buyers.

Finally, NRECA recommends that a covered entity not be constrained by an artificial limit on the use of offset credits to satisfy its compliance obligation. It is not necessary to cap the use of offsets by covered entities, as the size of the domestic and international offset programs will be limited by the available verified, cost-effective offsets.

The Continued Critical Role of the Rural Utilities Service

The greenhouse gas emissions caps under this bill will make it very difficult for electric cooperatives to meet their consumers' growing demand for energy. Cooperatives are leaders in efficient delivery of electricity; demand is growing in co-op territory because people are moving there. There are only a few sources of energy—coal, nuclear and natural gas—capable of providing baseload generation. Baseload generation is the backbone of our electricity delivery system and allows utilities to meet their obligation to serve all customers with reliable electricity that is there when the switch is flipped. Until and unless Carbon Capture and Sequestration (CCS) technology is commercial and economic, building new coal plants to meet the needs of our customer-owners will be extremely difficult, with the result that the only baseload energy sources at our disposal will be nuclear and natural gas.

As this Committee knows, rural electric cooperatives are able to deliver power to Americans in over 75 percent of the country's land mass because of electric cooperatives' 70 year partnership with the U.S. Department of Agriculture (USDA) Rural Utility Service (RUS). The RUS Electric Loan program makes it possible for cooperatives to construct and maintain their distribution and generation systems, while keeping electricity rates down and keeping them stable. NRECA appreciates this Committee's steadfast support of the RUS program over the years. Now, more than ever, the restriction on RUS lending for the construction of baseload power derived from nuclear and coal with carbon sequestration should be lifted.

The Importance of Derivative Instruments

As discussed above, significant new investments in natural gas generation will subject cooperatives to new levels of marketplace risk. NRECA's members will need to keep consumer prices stable as usage of natural gas increases. That means our cooperatives will need to continue to hedge their natural gas risk on the over-the-counter derivatives market. If the costs of hedging become unaffordable, electric cooperative consumers will be exposed to the unpredictable, and often expensive, price swings in the natural gas market—in addition to the costs already inherent in carbon reduction policies.

The Nation Needs a Comprehensive Transmission Policy

NRECA supports efforts to expand the transmission grid to meet the needs of consumers, including the need to deliver renewable resources from remote locations to high-consumption urban load centers. As it happens, many of these renewable energy-rich remote locations are within the service area of NRECA's member electric cooperatives, many of whom have joined together in the National Renewables Cooperative Organization (NRCO) to facilitate the development of renewable generation.

In order to effectively utilize and increase the nation's current supply of economic renewable energy, Congress must provide a comprehensive, effective national transmission policy which contemplates and provides solutions to four key issues: planning; siting; cost allocation and recovery; and integration of renewable resources.

Planning

Experience has taught NRECA that bottom-up planning—with full participation by load serving entities (LSEs)—is far preferable to top-down planning. In fact, only through bottom-up planning can the industry ensure that new transmission infrastructure operates effectively, efficiently and reliably with the existing transmission grid. Because the electric grid in each interconnection is a single complex machine, an overlay system planned in isolation from the existing grid and the long-term plans of the stakeholders would impose enormous unnecessary costs on consumers and undermine the reliability of the existing transmission system.

As it stands, ACES adopts an effective transmission planning process that appropriately builds up from existing local and regional transmission planning efforts and that focuses on meeting consumer needs reliably and affordably, as well as meeting national environmental priorities. State and Federal governments lack the staff, resources, and operational experience required to perform the highly technical tasks involved in transmission planning. The legislation appropriately limits Federal involvement in the planning process to coordination and loose oversight to ensure that national priorities are addressed by the planning entities. As the ACES trans-

mission provisions evolve, Congress should resist any push to create a large Federal bureaucracy to conduct planning and be wary of claims that bottom-up planning is unsuited to developing transmission that spans many regions across an interconnection.

Siting

At this time, ACES is silent on the critical issue of siting. NRECA believes there are instances where the Federal Government should have siting authority and the ability to over-ride state decisions. NRECA has consistently supported the backstop siting authority granted to the Federal Energy Regulatory Commission (FERC) in the Energy Policy Act of 2005. This authority allowed FERC to site both conventional, as well as extra-high voltage (EHV) transmission facilities within “National Electric Interest Transmission Corridors” designated by the Department of Energy (DOE).

NRECA also supports Federal authority to site EHV transmission facilities anywhere in the country provided (1) the facilities are identified in a regional planning process as needed to ensure reliability or provide consumers power more economically; (2) the facilities are interstate projects; (3) the owners of the facilities are not eligible for enhanced rates of return or other financial incentives that raise the cost of the facilities for consumers; (4) the costs of the facilities are fairly and broadly allocated; and (5) use of the facilities is not limited to renewable resources. NRECA proposes that Congress add a new section on EHV siting that permits entities wishing to build EHV facilities (and meeting these conditions) to petition FERC for a Federal certificate of convenience and necessity and Federal eminent domain authority.

Cost Allocation and Recovery

NRECA recognizes that expanding the transmission grid to meet consumer needs, including the integration of renewable resources, may result in substantial costs. Experts believe that new transmission could cost, on average, approximately \$1 million per mile. Co-ops must not be made to bear more than a fair share of the cost of EHV transmission to deliver renewable energy to higher population load centers. NRECA urges Congress to develop cost allocation policies that are fair and take into consideration the benefits received from any new transmission facilities. NRECA proposes that Congress add a new section on cost allocation that provides for broad sharing of the cost of new EHV interstate transmission facilities that arise from the transmission planning process defined in ACES, as well as the cost of any lower voltage facility upgrades required for the reliable interconnection and operation of interstate EHV facilities. Broad cost allocation should be conditioned on: the facilities arising from the planning process; a right for any entity to own a share of the facilities; limits on rate “incentives” available to those who build the facilities; and, consideration for those consumers in regions that may not obtain any benefit from the investments.

Integration of Renewable Electricity

While Federal legislation may call for the construction and financing of “renewable-only” electric transmission lines, in practice it is impossible, in an integrated grid, to segregate renewable electricity from conventional electricity. No element of the integrated transmission system is physically able to distinguish which form of generation produced the current. The only way to assure the delivery of purely “green” electrons would be to construct an isolated line directly from a renewable generation source to its customer. Other legislation may call for incentives for lines that give priority access to renewable resources. Such preferences would unnecessarily increase the cost of power for consumers, reduce the use of expensive transmission facilities, and undermine grid reliability.

Conclusion

Again, thank you for the opportunity to testify at today’s hearing. The electric cooperative industry faces many challenges, including consumer uncertainty, transformative policy changes, technology evolutions and large-scale infrastructure needs. However, the cooperative business model and the public-private partnership with RUS make cooperatives well-equipped to innovate, adapt and continue providing the basic human right of affordable, reliable power. NRECA looks forward to working with Members of this Committee, other committees with jurisdiction over various aspects of this issue, and the entire House of Representatives to develop an affordable, workable, and sustainable piece of legislation. I look forward to answering the Committee’s questions.

The CHAIRMAN. I thank you very much, Mr. English. We appreciate your being with us.

Now, Mr. West, we appreciate you as well, and you are recognized to summarize your statement.

STATEMENT OF FORD B. WEST, PRESIDENT, THE FERTILIZER INSTITUTE, WASHINGTON, D.C.

Mr. WEST. Thank you, Mr. Chairman, and I appreciate the opportunity to be here.

First of all, let me say that the fertilizer industry is very supportive if this Committee can generate some carbon emission offsets for agriculture. We have been working with the Province of Alberta up in Canada to put together a protocol based on fertilizer best management practices to reduce nitrous oxide emissions in the field. It is peer-reviewed. The protocol is based on fertilizer best management practices, using the 4R nutrient stewardship system which is use the *Right Product @ Right Rate, Right Time, Right Place*. It has the potential to increase agriculture yields, to enhance fertilizer use efficiency, reduce emissions and greenhouse gas emissions to really generate emission allowance for farmers.

We think the Alberta farmers will be using that this fall, and we want to make sure that we are working with the USDA to make sure they are aware of the program and they understand it, and we think it ought to be part of any offset program.

Now, let me talk about fertilizer. If my good friend, Mr. English, here is urging fairness, I am urging survival out of this climate change legislation. We are energy-intensive, we are greenhouse gas intensive, we are trade-intensive, we are subject to competition in the global market, and we meet the 25,000 ton criteria in this bill.

Fertilizer is nitrogen phosphate and potash, but I am going to focus on nitrogen because it is the most vulnerable economic impact to the cap-and-trade system.

One of the challenges that we have is that we take nitrogen from the air, combine it with hydrogen from natural gas and make ammonia, which is the building block of all nitrogen fertilizers, and we produce CO₂ in that process. Now, that is a chemical process, and we are bound by that process and we can't change that process.

And so when everybody wants to get to this new economy that we are in, this low-carbon economy, we are kind of old-school. We are stuck in the old economy, because if we produce ammonia, we produce CO₂. And 65 percent of our emissions are tied to what we call process gas emissions—that is, CO₂—and 35 percent are combusted-related emissions.

Now, when we repealed the Fuel Use Act after all these utilities have built all these coal plants, we allowed the utilities to go back to burning natural gas to produce electricity. And there is a term in this whole complex called *leakage* that has come up. And *leakage* is a term that says what industry can we afford to lose or what economic activity can we afford to lose to meet our policy goals?

Well, when we converted, repealed the Fuel Use Act and allowed the utilities to burn natural gas to produce electricity, and we went from zero of electricity produced by natural gas to about 20 percent today, the leakage was the U.S. nitrogen industry.

We closed 29 plants, as the natural gas price went from about \$2 to about \$7.50, simply because we were not competitive in rural markets with that price of natural gas. It takes about 32,000 cubic feet of natural gas to make a ton of ammonia, and about 90 percent of the cost of doing that is from ammonia—is from natural gas, I am sorry.

Now, we are eligible for the emission allocation program that is in H.R. 2454. We are eligible for that. And that whole program is designed to provide transition assistance for industries like ours, energy-intensive, trade-intensive. About 15 percent of the emission allowances in H.R. 2454 are targeted for the energy-intensive industries. And they will be adjusted down two percent a year starting in 2015 to 2025.

Now, right now I can't tell you how many allowances our industry will be eligible for, whether it is 100 percent in year 1, and we have to downsize to 80 percent in 2025 or we started out with 75 and we have to get to 50. We don't know because that determination is not yet met.

But it looks like to us that we are not going to get enough allowances to keep us competitive in this 10 year transition period between 2015 and 2025. And so the real issue for us is are we going to produce nitrogen in the United States.

We currently import about 55 percent of our nitrogen. And if we cannot be competitive in this 10 year transition period—and, of course, after that it gets phased out—then we will look offshore for our production.

Now, we have 29 fertilizer plants, nitrogen plants left. These are good-paying jobs, about 150, 200 jobs tied to each plant that are located in rural America. It is about \$75,000 per year per employee. That is considerably higher than what your average job is, \$42,000. So these are good-paying jobs, these are very efficient plants, but we are very concerned about their viability at this time.

We already talked about fuel switching. That is another issue. Mr. English, we were talking to him about being late here, just us two left. He said, well, I am going to tell you what our answer is. We are going to switch all of our coal plants back to natural gas, and we will use up all our natural gas.

Today natural gas is \$3.50 MMBtu. We are saying because of the new finds of natural gas, we are going to have a lot of natural gas. Natural gas has spiked three times above \$10 since 2000. A year ago at this time, natural gas was \$13. We were producing ammonia at \$13, but ammonia was \$1,000 a ton. Today it is \$3.50 and ammonia is about \$3.50.

Certainly everybody is concerned what this cost will be. Production costs will go up. Doane Advisory Service did an analysis for us. Lieberman-Warner said production costs will go up \$6 to \$12 billion. We are trying to wait for EPA's analysis to do that again.

In conclusion, let me just say that we want to be the leakage this time around in this legislation. And I just want to remind this Committee that food security is a national security; 40 to 60 percent of the world's production is tied to fertilizer use. And if we ship our fertilizer offshore, that will be a detriment to our own food security.

And I thank you and I will take your questions.

[The prepared statement of Mr. West follows:]

PREPARED STATEMENT FORD B. WEST, PRESIDENT, THE FERTILIZER INSTITUTE,
WASHINGTON, D.C.

Good afternoon Chairman Peterson, Ranking Member Lucas and Members of the Committee. I am Ford West, President of the Fertilizer Institute. The Fertilizer Institute is the leading voice for the nation's fertilizer industry and I am pleased and appreciative of the opportunity to provide you with our industry's perspective on climate change legislation.

The fertilizer industry is made up of nitrogen, phosphate and potash production. Nitrogen is made from natural gas, which there is no substitute for in the chemical process. This means that the nitrogen fertilizer industry is highly dependent on supplies of natural gas. Phosphate and potash are minerals mined from the Earth, and this process also requires a great deal of energy.

The fertilizer industry has gone to great lengths to advocate environmental stewardship and many of our members participate in voluntary climate change markets. If Congress insists that a climate change policy is necessary, we believe that it is important to implement a policy that preserves our ability to compete as manufacturers, while reducing greenhouse gases (GHG) to protect the environment.

Farmers can play a very important role in the reduction of climate change related emissions. Not only can low till and no till farming techniques help increase the carbon content of soils and reduce erosion, there are also practice based approaches such as the Alberta Protocol, which is based on fertilizer best management practices, that demonstrate farmers' capacity to reduce nitrous oxide emissions from the field. The Alberta Protocol is a peer reviewed set of fertilizer best management practices based on the 4R nutrient stewardship system, which promotes the use of the right product applied at the right rate, right time and right place. These best management practices have the potential to not only increase agricultural yields but they can also enhance fertilizer use efficiency, significantly reduce emissions of GHGs and improve water quality.

Both our nitrogen and phosphate products will be impacted by H.R. 2454, but I will focus today's comments on our nitrogen industry sector, which is most vulnerable to the impacts of a cap-and-trade system. As I will explain in my testimony, this cap-and-trade proposal will place our industry at a serious competitive disadvantage compared to global fertilizer production and likely will force the domestic fertilizer industry overseas to countries that have no carbon reduction policies in place.

A multitude of crop producers, the largest of which are corn growers, rely on our products to produce food, feed and now fuel. Fertilizer is an essential agriculture input that is responsible for 40 to 60 percent of world food production.

The nitrogen industry will be impacted by a cap-and-trade system because it is uniquely sensitive to the price of natural gas as it is a feedstock, or input, required to make nitrogen. We use natural gas as an ingredient in a fixed chemical process that combines nitrogen from the air and hydrogen from the gas to produce nitrogen fertilizer, in a form that the plant can take up. Outside of changing the laws of chemistry, there is nothing we can do to change this process and, consequently, as much as 90 percent of the cost of producing a ton of ammonia, the building block for all other nitrogen fertilizers, can be tied directly to the price of natural gas. This makes nitrogen production one of the most energy intensive manufacturing processes that exists.

Between 1983 and 2006, the industry reduced the amount of natural gas used to produce a ton of ammonia by 11 percent. With that energy efficiency came carbon reductions. The U.S. Environmental Protection Agency (EPA) estimates that between 1990 and 2006, U.S. nitrogen producers reduced their GHG emissions by 4.5 million tons of CO₂ equivalent. While our member companies are committed to additional energy efficiency projects, there will come a point where, due to the constraints of chemistry, the efficiency gains will be limited. There are simply no loopholes in the principles of chemistry.

Historically, the cost of natural gas has exacted a heavy toll on America's nitrogen fertilizer producers and the farmer customers they supply. The resulting impact on the American fertilizer industry has been unprecedented and threatens to irreversibly devastate the U.S. nitrogen fertilizer manufacturing industry. The U.S. nitrogen fertilizer industry now supplies a little less than 1/2 of U.S. farmer nitrogen fertilizer needs—a very notable departure from a domestic nitrogen fertilizer industry which typically supplied 85 percent of farmers' nitrogen needs during the 1990s.

Specifically, since 2000, the U.S. nitrogen industry has closed 26 nitrogen fertilizer production facilities, due primarily to the high cost of natural gas. Currently, only 30 nitrogen plants are still operating in the United States and presently 55 percent of U.S. farmer's nitrogen fertilizer is imported. Of this imported fertilizer, 82.7 percent is made up of countries without climate change policies in place to regulate carbon, and a majority of these countries are those from whom we are striving for energy independence.

U.S. farmers are becoming increasingly dependent on foreign sources of fertilizers from places that offer cheap natural gas like the Middle East, China, Russia and Venezuela. In 2007, U.S. farmers imported 314 thousand tons of nitrogen materials from Libya; 477 thousand tons from Egypt; 1.8 million tons from the Middle East; and over 3 million tons from countries of the former Soviet Union.

The fertilizer industry has grave concerns that our remaining domestic nitrogen production cannot stay operational through any transition period of a cap-and-trade system where utilities turn to natural gas as an alternative for generating electricity and fertilizer producers are forced to buy emission credits on the open market. It is important to understand that fertilizer is a global commodity traded in a world market. In addition to the nitrogen producing countries I listed earlier, which are already at a competitive advantage over U.S. producers thanks to their easy access to supplies of natural gas and reduced manufacturing costs, U.S. fertilizer producers are also competing against producers in the European Union and Australia, whose governments have adopted or drafted policies that aim to fully protect their energy-intensive/trade-intensive industries. As H.R. 2454 is currently drafted, it would place U.S. fertilizer producers at a competitive disadvantage and force them to make a stark choice between losing market share to imports or moving production overseas. American policy that would increase demand and thus drive the cost of natural gas up will further handicap our domestic production and lead to more plant closures.

Moreover, reduced domestic production of fertilizer will only increase costs to American farmers since they will be more exposed to price volatility and product availability resulting from importing such a great deal of our plant nutrient needs.

Increased input costs for farmers are another concern under a cap-and-trade system. Last year, TFI commissioned a study on the impacts of high energy costs resulting from a cap-and-trade system on American farmers. Using the Lieberman-Warner bill as a baseline and EPA's moderate economic analysis of the impacts to energy prices resulting from the legislation, Doane Advisory Services measured the production cost increases for eight farm commodities. Doane economists found that any such cap-and-trade system would add \$6 to \$12 billion to total crop production costs leading to a significant decline in farm income. If a cap-and-trade system is enacted in the United States, it is imperative that American farmers are able to offset these additional crop production costs with the ability to earn soil carbon sequestration credits through various best management practices.

Congress must tread cautiously and consider all ramifications and unintended consequences of any potential climate change legislation. Fertilizer is a strategic commodity and global food security cannot be attained without the use of commercial fertilizers. It is frightening to imagine the uncertainties that could result if U.S. policy made us completely reliant upon foreign sources for our food production.

In closing, I would like to again express our concerns with H.R. 2454, The American Clean Energy and Security Act of 2009. Particularly, I draw your attention to the proposed allowance allocation program designed to provide transition assistance for energy-intensive, trade-exposed industries. While this allowance program has been designed to cover such industries' increased costs from the climate change program, the number of allowances that would ultimately flow to the fertilizer industry appears to fall short of what would be needed to ensure global competitiveness for U.S. fertilizer producers. Absent dramatic changes, the current allocation program will render the U.S. nitrogen industry uncompetitive, and threatens to force fertilizer production overseas to countries that do not regulate emissions resulting in a loss both for the economy and for the cause of reducing CO₂ emissions.

I would like to thank you for the opportunity to present the fertilizer industry's concerns related to climate change legislation. I appreciate your interest in our industry's needs and I am happy to answer questions at the appropriate time.

American Clean Energy and Security Act of 2009***Internationally Recognized Protocols to Reduce Greenhouse Gas Emissions****Position—*

Congress must recognize and adopt the efforts undertaken by International Governments to reduce GHG emissions and/or sequester carbon. The province of Alberta is developing a protocol that will allow farmers to sell greenhouse gas offsets based on their adoption of best management practices that reduce emissions of nitrous oxide from the application of fertilizer. It is estimate that adoption of the Nitrous Oxide Emission Reduction Protocol (NERP) by farmers could lead to 1 to 2 million tons of CO₂ equivalent greenhouse gas reductions across Canada.

Rationale—

The NERP is designed to quantify GHG emission reductions associated with Best Management Practices to manage nitrogen fertilizer. The quantification approach of the NERP is based on the methods used in the Canadian Inventory Report, prepared to meet Canada's Kyoto commitments and validated by the IPCC. The operational framework of the NERP is based on a comprehensive nitrogen management plan supporting the performance areas described in the 4R stewardship model—Right Product @ Right Rate, Right Time, Right Place (“4R”). The NERP is developed according to the ISO 14064–2 standard, which meets the requirements of the Alberta Offsets System, and which is compatible with the stated intentions of Canada's Offsets System and the California Climate Action Registry. By recognizing projects in the United States, that have already been adopted by other international governments; offers U.S. farmers the same opportunity to earn offset credits as their international competitors, as well as prohibits them from being at a competitive disadvantage.

Amendments to the Waxman-Markey draft—Section 740(a)(2)(A) should be amended to allow offset projects established by international bodies to be recognized and the protocols be adopted to be used by U.S. farmers for the purpose of earning offset credits.



**THE U.S. FERTILIZER INDUSTRY
AND CLIMATE CHANGE POLICY**

 The Fertilizer Institute
Nourish. Replenish. Grow.

*Fertilizer is a global strategic commodity and is critical
for the production of food, feed, fuel & fiber.*

Fertilizer nutrients – nitrogen, phosphorus and potassium – are all naturally occurring elements that are “fed” to plants and crops for healthy and abundant food and fiber production. They are currently responsible for 40 to 60 percent of the world’s food supply. Harvest after harvest, fertilizers replenish our soils by replacing the nutrients removed by each season’s crop. Each year, the world’s population grows by 80 million and fertilizers – used in an environmentally sensitive way – are critical to ensuring that our nation’s farmers grow an adequate supply of nutritious food for American and international consumers.

As consumers around the world demand improved diets, the global demand for fertilizers is growing rapidly. Under these circumstances, U.S. farmers compete with farmers from around the world for a limited supply of nutrients. For example, over 85 percent of our potash and over 50 percent of the nitrogen used on U.S. farms is now imported from other countries.

The United States needs a strong domestic fertilizer industry to ensure this valuable resource is available for a stable food production system. Today, the world’s food supply, as represented by the grain stocks-to-use ratio, is near its lowest level in 35 years.

In six of the last seven years, consumption of grains and oilseeds has exceeded production. *Many experts believe that we are just one natural disaster or substandard world harvest away from a full-scale food crisis.*

*Today, the world’s food supply is near its lowest level in 35 years.
Now more than ever, the United States needs a
secure, domestically produced food supply.*

**WHEN FORMULATING CLIMATE CHANGE RELATED POLICIES,
CONGRESS NEEDS TO CONSIDER THE IMPACT THESE POLICIES COULD
HAVE ON OUR NATIONAL FOOD SECURITY.**

- FERTILIZER IS A GLOBAL STRATEGIC COMMODITY.**
Commercial fertilizer nutrients are currently responsible for 40 to 60 percent of the world’s food supply.
- THE FERTILIZER INDUSTRY IS AN ENERGY INTENSIVE INDUSTRY.**
- THE FERTILIZER INDUSTRY IS AN ENERGY EFFICIENT INDUSTRY.**
- CONGRESS NEEDS TO CONSIDER THE DRAMATIC IMPACT CLIMATE CHANGE POLICIES COULD HAVE ON OUR NATIONAL FOOD SECURITY.**
Farmers must have fertilizer in order to continue to produce a stable food supply.

The fertilizer industry is an energy intensive industry & has taken early action to achieve NUMEROUS ENERGY EFFICIENCIES.

Each bushel of corn, wheat or soybeans needs the nutrients provided by commercial fertilizers. Fertilizers are natural *resource-based* products.

NITROGEN - A CHEMICAL REACTION

Nitrogen fertilizer begins with ammonia, which is produced by capturing nitrogen from the air and using a complex chemical reaction in which natural gas is the typical feedstock for the hydrogen needed to make the nitrogen available for plant uptake. The cost of natural gas represents between 70 and 90 percent of the cost of producing ammonia, the building block for most nitrogen fertilizers.

PHOSPHATE AND POTASH - MINED RESOURCES

The production of phosphate and potash fertilizers begins at the mines, where phosphate and potash reserves exist, yet many finished complex and phosphate fertilizers contain nitrogen and are thus also dependent on natural gas for their production.

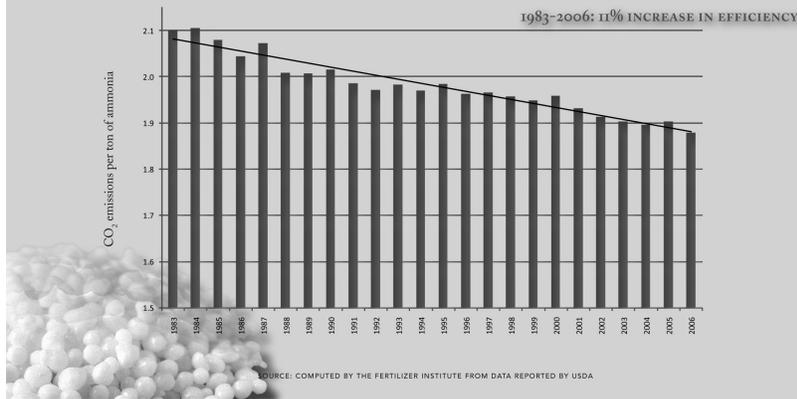
FERTILIZER IS AN ENERGY EFFICIENT INDUSTRY -

The U.S. fertilizer industry – already one of the most energy efficient fertilizer sectors in the world – has voluntarily taken early action to achieve energy efficiencies. Between 1983 and 2006, the industry reduced the amount of natural gas used to produce a ton of ammonia by 11 percent, and the companies that comprise the industry are continuing to look for ways to reduce their overall carbon footprint.

Beyond early action toward efficient natural gas use, the industry also continues to reduce emissions through co-generation, in which waste heat is captured and utilized in place of carbon based energy.

Among the three primary nutrients, potash production requires the least amount of energy.

CO₂ Emissions Per Ton of Anhydrous Ammonia Production



Greenhouse gases are produced as a result of numerous industrial processes. In 2006, industrial processes from many industries generated emissions representing approximately 5 percent of total U.S. greenhouse gas emissions.

Specifically, in the fertilizer industry, greenhouse gas emissions come mostly from three industrial processes:

AMMONIA AND UREA PRODUCTION; PHOSPHORIC ACID PRODUCTION; & NITRIC ACID PRODUCTION.

AMMONIA AND UREA PRODUCTION:

Ammonia is the basic building block for most nitrogen fertilizers and many other important chemicals, including refrigerants and pharmaceuticals. CO₂ is emitted during the production of ammonia, and the majority of these emissions result from the use of natural gas as a feedstock in the ammonia manufacturing process. Natural gas is the feedstock used in the vast majority of ammonia manufacturing. A portion of CO₂ emissions also results from venting when more CO₂ is produced than can be sold.

NITRIC ACID PRODUCTION:

N₂O emissions result from the production of nitric acid, a compound that is primarily used to make commercial

fertilizers. It is also used as a feedstock for the production of nylon and explosives. The nitric acid produced in the United States comes from the conversion of ammonia and produces energy as heat that helps support the manufacturing process.

PHOSPHORIC ACID PRODUCTION:

Phosphoric acid, which is produced using phosphate rock, is a basic raw material in the production of phosphate-based fertilizers. Phosphate rock releases some CO₂ when phosphate rock is reacted with sulfuric acid in the phosphate fertilizer manufacturing process. Additionally, some CO₂ is emitted from fuel combustion in this process.

The fertilizer industry recycles many CO₂ emissions.

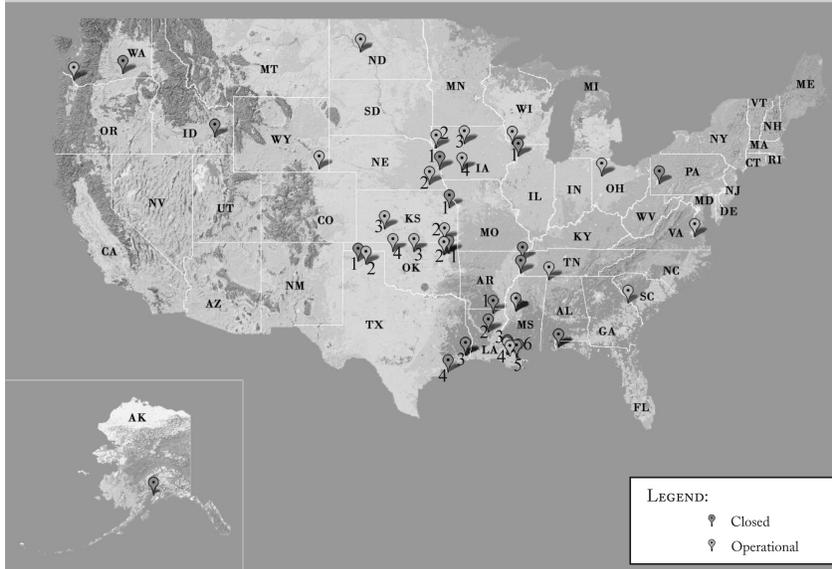
The nitrogen fertilizer industry currently recycles more than one-half of the CO₂ it produces in the manufacturing process. Specifically, there are two types of CO₂ emissions from nitrogen fertilizer production – fixed process emissions which produce CO₂ that is pure and recyclable and combustion emissions which cannot be separated for recovery. Fixed process emissions are subject to the laws of chemistry and cannot be reduced. However, these emissions are used in a variety of ways including the manufacture of urea, beverage production, and carbon capture and storage for enhanced oil recovery.

According to the U.S. Environmental Protection Agency (EPA), between 1990 and 2006, U.S. ammonia and urea producers reduced their greenhouse gas (GHG) emissions by

4.5 million tons of CO₂ equivalent.

Nitric acid is also used in the nitrogen fertilizer production process. In the same timeframe, nitric acid producers have reduced their GHG emissions by 1.4 million tons of CO₂ equivalent. Sulfuric acid is used to produce phosphoric acid, a major raw ingredient in the phosphate fertilizer production process. Phosphoric acid plants generate a large amount of “green” energy via the heat produced in reacting sulfuric acid. This heat is captured and used downstream to produce phosphate fertilizer products thereby reducing the need to purchase energy from powerplants. Finally, phosphoric acid producers have reduced their emissions by 0.3 million tons of CO₂ equivalent.

Operational and Closed Ammonia Plants Since Fiscal Year 1999



ALABAMA
El Dorado - Cherokee

ALASKA
Agrium U.S. Inc. - Kenai (2 plants)

ARKANSAS
Terra Industries, Inc. - Blytheville

FLORIDA
Air Products & Chemicals, Inc. - Pace Junction

GEORGIA
PotashCorp - Augusta

IDAHO
Simplor - Pocatello

ILLINOIS
Rentech Energy Midwest Corp. - East Dubuque

IOWA
1. PotashCorp - Clinton
2. Terra Industries, Inc. - Port Neal
3. Koch Nitrogen Company - Fort Dodge
4. Green Valley Chemical Corp. - Creston

KANSAS
1. Farmland Industries, Inc. - Lawrence
2. Coffeyville Resources, LLC - Coffeyville
3. Koch Nitrogen Company - Dodge City

LOUISIANA
1. Koch Nitrogen Company - Sterlington
2. Farmland Industries, Inc. - Pollock
3. PotashCorp - Geismar
4. A. CF Industries - Donaldsonville (4 plants)
B. Terra Industries - Donaldsonville (2 plants - 1 operational, 1 closed)
5. Solutia Inc. - Luling
6. Cytec Industries Inc. - Fortier
7. Mosaic - Faustina

MISSISSIPPI
Terra Industries, Inc. - Yazoo City (2 plants - 1 operational, 1 closed)

NEBRASKA
1. PotashCorp - LaPlatte Bellevue
2. Koch Nitrogen Company - Beatrice

NORTH DAKOTA
Dakota Gasification Company - Beulah

OHIO
PotashCorp - Lima

OKLAHOMA
1. Wil-Grow Fertilizer Company - Pryor
2. Terra Industries, Inc. - Verdigris (2 plants)
3. Koch Industries, Inc. - Enid
4. Terra Industries, Inc. - Woodward

OREGON
Dyno Nobel, Inc. - St. Helens

PENNSYLVANIA
USX - Clairton

TENNESSEE
PotashCorp - Memphis

TEXAS -
1. Diamond Shamrock - Dumas (2 plants)
2. Agrium U.S., Inc. - Borger
3. Terra Industries, Inc. - Beaumont
4. El Paso - Freeport

VIRGINIA
Honeywell - Hopewell

WASHINGTON
Agrium U.S., Inc. - Kennewick

Wyoming
Dyno Nobel, Inc. - Cheyenne

ANY NEW U.S. CLIMATE CHANGE POLICY MUST DELIVER

environmental progress *without* harming the economy.

It is imperative that Congress consider the value proposition for energy policy, the environment and the economy when evaluating its options on new climate change policies. *The U.S. fertilizer industry is operating at environmental efficiencies that are not matched by many of its competitors in the world market.* Farmers must have fertilizer in order to continue to produce a stable food supply.

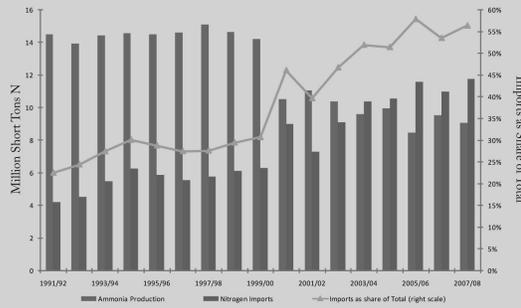
During the last decade, 26 U.S. ammonia plants have closed primarily due to high natural gas prices. It is critical to our nation's food security and meaningful environmental improvement that Congress align climate with energy policy. This means not imposing a climate change policy that renders U.S. nitrogen manufacturing uncompetitive, drives natural gas prices higher and in turn, threatens to move more fertilizer production to less environmentally friendly and efficient areas of the world. Currently, the United States imports approximately 55 percent of the nation's nitrogen needs. *Of these imports, 82.7 percent comes from countries without climate change policies in place to regulate carbon.* Much of this imported fertilizer is also transported long distances, which in turn, creates additional GHG emissions.

Responsible legislation must consider the ultimate goal of reducing global carbon dioxide emissions without losing American jobs.

The fertilizer industry provides high paying jobs to hardworking Americans

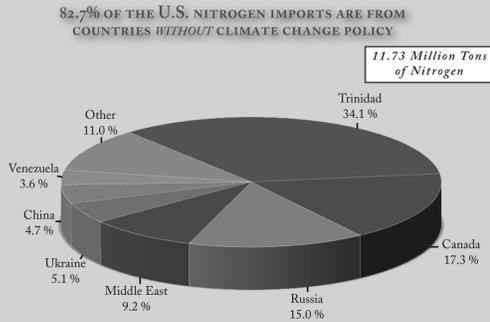
in production plants, in retail and wholesale businesses, and in a host of related industries such as rail, barge and truck transportation. With the U.S. economy facing some of the most serious challenges in modern history, it is critical that any climate change policy not jeopardize jobs that are such a vital link in food production and the U.S. economy.

U.S. Nitrogen Sources - Ammonia Production and N Imports



SOURCE: COMPUTED BY THE FERTILIZER INSTITUTE FROM DATA REPORTED BY U.S. DEPARTMENT OF COMMERCE

U.S. Nitrogen Imports per Country, Fiscal Year 2007/08



FERTILIZER IS A GLOBAL STRATEGIC COMMODITY.

- Commercial fertilizer nutrients are currently responsible for 40 to 60 percent of the world's food supply.
- Over 85 percent of our potash and over 50 percent of the nitrogen used on U.S. farms is now imported from other countries.
- Many experts believe that we are just one natural disaster or substandard world harvest away from a full-scale food crisis.
- Every second, we have three new mouths to feed, while we lose an acre of farmland every 2.5 seconds.

THE FERTILIZER INDUSTRY IS AN ENERGY INTENSIVE INDUSTRY.

- The cost of natural gas represents between 70 and 90 percent of the cost of producing ammonia, the building block for most nitrogen fertilizers.

THE FERTILIZER INDUSTRY IS AN ENERGY EFFICIENT INDUSTRY.

- Between 1983 and 2006, the industry reduced the amount of natural gas used to produce a ton of ammonia by 11 percent, and the companies that comprise the industry are continuing to look for ways to reduce their overall carbon footprint.
- According to the EPA,

between 1990 and 2006, U.S. ammonia and urea producers reduced their GHG emissions by 4.5 million tons of CO₂ equivalent.

CONGRESS NEEDS TO CONSIDER THE DRAMATIC IMPACT CLIMATE CHANGE POLICIES COULD HAVE ON OUR NATIONAL FOOD SECURITY.

- The U.S. fertilizer industry is operating at environmental efficiencies that are not matched by many of its competitors in the world market.
- Farmers must have fertilizer in order to continue to produce a stable food supply.
- Currently, the United States imports approximately 55 percent of the nation's nitrogen needs. Of these imports, 82.7 percent comes from countries without climate change policies in place to regulate carbon.
- With the U.S. economy facing some of the most serious challenges in modern history, it is critical that any climate change policy not jeopardize jobs that are such a vital link in food production and the U.S. economy.

 <p>NITROGEN (N) is a primary building block for all organisms. It is essential to making proteins, helps keep plants green and is a critical component of soil organic matter. COMES FROM THE AIR</p>	 <p>PHOSPHORUS (P) is found in every living cell. Phosphorus is a component of DNA and it also plays vital roles in capturing light during photosynthesis, helping with seed germination, and helping plants use water efficiently. Plants also use phosphorus to help fight external stress and prevent disease. COMES FROM ANCIENT SEA LIFE</p>	 <p>POTASSIUM (K) is essential to the workings of every living cell. It plays an important role in plants' water utilization and also helps regulate the rate of photosynthesis. Other aspects of plant health influenced by potassium include the growth of strong stalks, protection from extreme temperatures, and the ability to fight stress and pests such as weeds and insects. COMES FROM EVAPORATED OCEANS</p>
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KEY MESSAGES ABOUT FERTILIZER

1. Fertilizers are drawn from nature – they are not man-made.
2. Farmers are not adding fertilizers to the ground. They are replacing nutrients that are lost at each harvest.
3. The world has no choice but to use fertilizers. Without them, more than two billion people would starve.
4. By helping to conserve land, fertilizers safeguard recreational land and wildlife habitats.
5. Farmers care about the environment as much as anyone.

The CHAIRMAN. I thank the gentleman for his testimony.

So do you know how many credits you are getting or is that what you said you don't know?

Mr. WEST. Well, here is how it works. The energy-intensive industries gets 15 percent, and there are probably 45 sectors in energy-intensive, okay?

The CHAIRMAN. So you are in with those guys.

Mr. WEST. I am in with all of them.

The CHAIRMAN. So you don't know what your share is going to be?

Mr. WEST. I don't know what my share is going to be. And if we have enough, then I will probably be 100 percent. But if we don't have enough, then everybody gets prorated, okay. And all of those sectors are trying to figure out what their emissions are.

We are right now in rulemaking at EPA to determine the rule that all those sectors will have to report to EPA. EPA decides who the sectors are and then will decide what the average emission rate is for that sector, and then that is what you get.

The CHAIRMAN. But the law hasn't passed yet, so they are already doing this?

Mr. WEST. The rule, absolutely.

The CHAIRMAN. Well, the rule, okay.

Mr. WEST. The rule to report. Anybody over 25,000 tons of emissions, there is a rule underway right now. We just submitted our comments on the rule. That will be finalized, and that will be the standard for which you have to report under this bill.

The CHAIRMAN. And if you go offshore, you move this to producing it in Canada, then you don't have to comply with any of this?

Mr. WEST. Well, what is interesting, when I go to my counterparts around the world, Europe, Canada, Australia, they are all—they all signed up on Kyoto, but none of them has ever gone to implement it yet, because they don't know what to do with their energy-intensive industries. And they don't want their industries to get—their manufacturing facilities to get out of their country. So they are just kind of playing around right now.

The only political body that is regulating energy-intensive industries is Alberta. Now how Alberta treated their nitrogen plant was they took their processed gas and set it out. They said we won't include processed gas in the calculations for your energy-intensive. And you have to remember now, in the states, in this bill, there is no requirement that any facility has to cut emissions. You do have to have emission allowances. And if you don't get your emission allowances you will have a permit from EPA that says you have to have emission allowances to cover your emissions. And if you don't get those emission allowances, then you have to cut back on your production.

The CHAIRMAN. Or you have to buy them from someplace.

Mr. WEST. Or you have to buy them.

The CHAIRMAN. Okay. Mr. English, you speak about the cooperatives using over-the-counter derivatives to hedge natural gas risk. There is language in the Waxman-Markey that appears to close down the over-the-counter market for energy derivatives.

Do your members have a position on that?

Mr. ENGLISH. Well, we are very concerned that that will obviously eliminate an opportunity to hedge for our members. We are small. We are not of the magnitude that was envisioned there. So we have some great concerns over that.

We think, particularly, that market needs to be made available for legitimate hedging purposes and that there shouldn't be anything, language-wise or implementation-wise, that would damage our opportunity to carry that out. That risk mechanism, should it be eliminated, would increase the cost to our membership significantly.

The CHAIRMAN. You were talking about Kentucky having 59 percent and Washington, say, 3,700 percent.

Can you supply the Committee with the sheet of paper that shows us—or we already have it?

Mr. ENGLISH. Yes.

The CHAIRMAN. In your testimony?

Mr. ENGLISH. Right. Well, also I know the Committee had made the request to the Energy Information Agency regarding that information as well. We are making it available as far as electric cooperatives are concerned, as far as investor-owned utilities. They have not been that forthcoming.

The CHAIRMAN. Are we getting that information, do you think?

Mr. ENGLISH. The Energy Information Agency evidently doesn't have good information on it. What I would suggest to Members of Congress—and I know there are a lot of Members that are wondering, well, am I a donor state or am I a reciprocal state, which one am I? I would suggest that you call your local investor-owned utility at home and ask them what percentage of the generation do we have that is coal- or fossil-fuel generated?

If it is over 50 percent, considerably over 50 percent, then I would say their odds are pretty good they are going to be a donor state.

In other words, they are going to lose. If it is a lot less than that, you may be one of those states that is winning. But they have not been that forthcoming with this information. The information we have gotten so far we have pulled out of a few annual reports and some public information that we have found on websites. It would be nice if we could get all of that information forthcoming, and then we could truly get an accurate picture of that. But we feel for electric cooperatives, and that is what you have before you, that is pretty close.

The CHAIRMAN. My time has expired. The gentleman from Oklahoma, Mr. Lucas.

Mr. LUCAS. Thank you, Mr. Chairman.

Mr. West, let me get this straight. You are telling me that you are now providing information to a registry about what you emit and the Federal Government until this point had no clue, we have been working on policy on things we didn't understand.

Mr. WEST. There is a rulemaking underway at EPA right now, and that rulemaking is in the final stages. And when it becomes final, we are going to have to start reporting our emissions to EPA.

Mr. LUCAS. It is kind of like tying your own noose, isn't it?

Mr. WEST. And that will be the basis for really the industry-wide baseline, especially for the energy intensive industries, that we will have to comply with.

Mr. LUCAS. And the impetus for this rule came from EPA internally as far as you know? Do you have any idea what their justification was for launching into the rulemaking process?

Mr. WEST. Well, I assumed it was getting ready for climate change legislation.

Mr. LUCAS. You got it. Let us touch for a moment on the survival of your industry. From what you have told us, if the present form of Waxman-Markey were to become law—and that is what we are dealing with now, the present form passed out of the Energy and Commerce Committee—what percentage of your industry under the present law as proposed will survive?

Mr. WEST. Well, we have 29 nitrogen plants. Each one of them has a different carbon footprint. So every one of them is impacted a little bit. But I don't think if we don't get 100 percent of our direct and indirect costs and maybe some emissions for what happens to the price of natural gas, none of them will be here in 10 years.

Mr. LUCAS. So every pound, ton of your product we buy domestically now—

Mr. WEST. We are already buying 55 percent of it.

Mr. LUCAS. But it could be 100 percent in 10 years, imported. Congressman English, Mr. English, Mr. President, whatever the case may be. Let us talk for a moment about the effect on our folks out in the countryside. I guess my first question is, if you were still the Sixth District Congressman for Oklahoma and you voted for this present version of Waxman-Markey, could you go home?

Mr. ENGLISH. I would have a very difficult time, Congressman Lucas, explaining to the folks back in my district, the Sixth District years ago, as to how I could agree to vote to give away allowances that would keep their electric bills less than what they were going to be otherwise, and giving those allowances to some other region of the country. I don't think I would be good enough at explaining that to be able to convince them that I did the right thing.

Mr. LUCAS. Nor would any of your successors be good enough either. The NRECA, were you all a part of this process of negotiating these allowance allocations?

Mr. ENGLISH. No, we were not a part of the negotiating of any of the allowances as far as the allocations were concerned. No.

Mr. LUCAS. Fascinating. So if you were not a part of the process and you take care of a huge amount of America, tell me what happens when the free allowances go away? What will the impact be on the price paid by country customers in this great United States?

Mr. ENGLISH. Well, keep in mind as the bill is written—

Mr. LUCAS. As written, of course, as written.

Mr. ENGLISH. As it is written, we will see the cap steadily reduced each and every year as we move toward, say, 2020. And under the objectives of the legislation, we will be 17 percent less than where we were in 2005. Now, also at the same time, we have some growth that is going to take place. We hope our economy is going to recover. We expect to have growth. So if you use the Energy Information Agency's actual numbers as to what they project

as a growth in emissions, you are really talking about more in the neighborhood of 24 percent rather than 17 percent. So that is something you have to keep in mind. And these are 2005 emissions that we are talking about here. So it is a pretty steady reduction and a sizeable number.

Mr. LUCAS. So then under this present bill proposal, it is fair to say the folks back home will pay more to get less, so they can be hotter in the summer, colder in the winter, and stay real close to home?

Mr. ENGLISH. Without getting your fair share of emissions allocations as it stands today.

Mr. LUCAS. Exactly. Thank you, sir.

I yield back.

The CHAIRMAN. I thank the gentleman. The gentleman from Indiana, Mr. Ellsworth.

Mr. ELLSWORTH. Thank you, Mr. Chairman. Thank you, gentlemen. Mr. Chairman, thank you for holding this hearing. Just because it was long, it was extremely important and a lot of things need to be heard. I hope a lot of people hear them.

Gentlemen, if my notes are correct, it was probably supplied by the Rural Electric Association. I have 132,775 electric rural electric customers in my district in Indiana. And I know these name tags don't say where we are from, but I have this little thing called the Illinois Coal Basin that my whole district is sitting right on top of. Numbers vary widely from whether we are a 96 percent coal-fired district electricity to 98 percent. So you know where I am coming from. We are going to get—62 percent is my understanding of what they are showing us in carbon emissions allocated under the current plan. That leaves 38 percent to be purchased. Like I said, when you told us, Mr. English, that some of these will receive well over 100, in fact some are going to receive 3,741, if the numbers are correct. What they actually need—I guess my question is simple. Don't either of you gentlemen think that these areas that are going to get 3,000 times a year are just going to donate those to Indiana and Ohio, out of the goodness of their heart and for the goodness of America so that those poor Hoosiers don't happen—and if you don't think that and you can answer that first. But, if you don't think that, then please tell me what is going to happen to those 132,775 members of rural electric in my district? I think we all represent about 675,000 people. So that is a pretty good chunk of my people. What is going to happen to their electric bills? Will they donate from those other fortunate areas that have the nuclear and hydro? And if not, what is going to happen to my electric bills?

Mr. ENGLISH. Well, I think that obviously—as I mentioned, we are very proud of the cooperative spirit we have in this country. We are very proud of our cooperatives in the Northwest, and this would be a huge windfall for them. But they recognize that the people from other regions of the country that have no hydro have come to their defense, have supported them with PMAs and help make certain that they are able to keep their electric bills low. And they are responding in the same way in this particular instance. That is tough. That is tough to turn around and recognize and understand it. But that is what you do with neighbors. One neighbor

helps another. Why, in their time of need you respond, and we are experiencing that same kind of response.

As to what happens with those folks, if you are from the cause of the reduction of the carbon emissions, your electric bill is going to increase substantially, substantially. And as I mentioned earlier, the whole idea of those allowances is to try to dampen that somewhat, take some of the pain out of it. If you are not getting your full share of allowances, that just means that it is going to be that much more painful and more difficult. It means that basically people are piling on. It basically means that in effect they are saying not only should you—do we want to eliminate or to reduce carbon emissions in this country for clean air purposes or for climate change purposes, but we are going to penalize you as well.

Mr. ELLSWORTH. I know sometimes it is easy to be neighborly when times are good. If the state budgets are in the situations they are, California and many states, even Indiana, and you have this commodity in hand that you can then sell, trade, barter with, I think that neighborliness might be a little less.

Mr. ENGLISH. It is going to be tough, and there is no question that there is a huge amount of money that can be made. It is expected that you will have a lot of speculators from Wall Street that are going to be big time in this market. I know many have talked about even international speculators will likely be in on this. That is who your local co-ops are going to have to go to, to buy the allowances after they have acquired them elsewhere. And so you are going to be paying this huge premium which then, of course, gets reflected on your electric bill that is going to impact all of the economy in your district. If your folks are suffering now, they are going to be suffering a whole lot more with that approach.

That is the reason, as I said, we are kicking up a big fuss. And some folks are telling us, you all just be quiet or you guys go to the Senate, go talk to the Senate, don't talk to us. This is already set. It is a very delicate matter here. It is a delicate coalition we have put together. Well, I would suggest the reason it is so darn delicate is because of the unfairness of this thing. And if you are really going to have a piece of legislation that is going to have this kind of impact on the economy of this country and on so many districts around this nation, it should be something that people get behind and support because it is not going to be easy to do this job. But if it is delicate and it is really balanced on taking away from one group of people and inflicting pain on them to the expense and benefit of somebody else, I don't think that is going to be sustainable and I don't think that is going to work. And we just want to make sure that every Member of the House understands, as I pointed out to Mr. Lucas, one of these days you may have to go home and explain how you could give away your allowances to somebody else in some other part of the country, and how that was justified and how that was fair. I sure couldn't do it. But I am sure there are folks that are lot better communicators than I am that might be able to pull that off. But I don't see how.

Mr. ELLSWORTH. Thank you very much, Mr. English. Mr. Chairman, I yield back.

The CHAIRMAN. I thank the gentleman. The gentleman from Virginia, Mr. Goodlatte.

Mr. GOODLATTE. Thank you, Mr. Chairman. And, Mr. English, welcome back. I served on this Committee for a very brief time before you departed. And since that time, I have been sitting close by this gentleman from Oklahoma. He has done a great job. We are glad to have him, but we are also glad to have you back. And, Mr. West, it is good to have you here, too.

Mr. ENGLISH. He has made them all forget about me. I just want you to know that, Mr. Goodlatte.

Mr. GOODLATTE. We are remembering you today. We are honoring you today. But I appreciate very much your plea for fairness and Mr. West's plea for survival. I am making a plea today for common sense, and I very much appreciate your discussion of the unfairness with the allocations.

I represent a district in western Virginia. We have a lot of rural electric cooperatives there. We have an unfair allocation here that is going to cause electricity prices to go up for my constituents more than they will in other places. But the premise behind this whole legislation and the Kyoto Treaty and whatever may be negotiated, moving forward, is that the greenhouse gas emissions that every power plant, business, home, automobile, truck, person emits are collectively causing a reduction—an increase in carbon dioxide in the atmosphere and other greenhouse gases, which is causing an effect that is raising the temperature of the world.

So as we juggle all of these different allocations between different communities, different industries, and different forms of energy production and energy usage, we have to be mindful of the fact that we are not just talking about what happens here in the United States, because it is one atmosphere, it is one globe. And when you have China building one new coal-fired power plant a week, I am told, and India doing something similar and many, many other developing countries doing the same and even countries that have signed onto the Kyoto Protocol, as Mr. West has talked about with regard to fertilizer, they are honoring it in the breach in many instances. They are nowhere near meeting the targets that they had agreed to.

So I guess my common sense question is, does it make sense to go forward with this legislation at all if what we are in the end accomplishing is simply transferring to countries elsewhere in the world, who I don't think have any intention of participating in this, like China or India, or being given such allowances because they are developing countries or whatever, that we will never, ever catch up to them; or losing the competitiveness that the United States presently has in terms of manufacturing, in terms of agriculture, in terms of other things that we have to use sources of energy for?

Mr. ENGLISH. Mr. Goodlatte, if the Supreme Court hadn't pulled that trigger on the Clean Air Act, we would have had the luxury of being able to have that discussion and come to that conclusion.

Mr. GOODLATTE. Let us talk about that. Because the Supreme Court decision does not say that the EPA is right or wrong. It just says the EPA has authority to do what they are doing.

Mr. ENGLISH. I believe, if I recall correctly, it ordered them to make a determination as to whether carbon was harmful to the health of the American public.

Mr. GOODLATTE. Correct.

Mr. ENGLISH. And if—

Mr. GOODLATTE. Lots of different ways you can define what is harmful to the health of the American public.

Mr. ENGLISH. That is correct.

Mr. GOODLATTE. What we emit, when we exhale, is hardly harmful to our health. But perhaps if you were reducing the temperature of the globe by reducing these emissions, you might accomplish that. But it is highly doubtful that we are going to significantly reduce those emissions, even if we go through this process. So it might make more sense for the Congress, for example, to take a different approach in terms of how to do this, or even to simply cut off the funding to the EPA and tell them you cannot spend these funds for this purpose. Because the Supreme Court wasn't saying this is a Constitutional requirement. It was simply saying this is our interpretation of what the Congress already did. The Congress gives, the Congress can take away. The Congress could on a year-by-year basis say don't spend any money on implementing these rules and regulations, let us instead take these trillions of dollars that we are going to spend and put them toward developing new technologies, and over the long period of time move away from carbon-based fuels, and over the long period of time address the effects of climate change, whether it be flood control measures or measures to help different communities adapt to temperature changes. And let us take the other trillions of dollars that we save and fight disease and let us fight starvation. Let us make sure we have clean water around the United States and around the globe, all of these things we are going to give up in order to pursue this goal of somehow lowering the thermostat of the world.

And if you look at the mean average of what different scientists say, you will be successful in reducing that temperature, that mean average is about $\frac{1}{20}$ of 1° C. So for trillions of dollars and decades, we will pursue a goal that scientists today don't know—we don't know—but scientists today on average say we will only have a minuscule impact on reducing the temperature.

So I agree with you we have a Supreme Court decision, but I don't think the Congress should be blackmailed by the EPA, do you?

Mr. ENGLISH. The point—I guess the position we are put into is that we recognize that the Environmental Protection Agency is already moving forward to make that determination. There is not a lot of doubt in our mind—maybe it is poor judgment on our part. But there is not a lot of doubt in our mind that the Environmental Protection Agency is going to come to that conclusion, whether you agree with it or not. We have to deal with the reality of that situation.

Mr. GOODLATTE. But we have to deal with the political reality. As Mr. Lucas said, can we go home and explain to our constituents why we would go to all of this complexity and all of this increase in utility costs, which we are told will increase electricity costs by close to 100 percent, will increase gasoline by about 75 percent, natural gas by 55 percent. I don't know what it will increase fertilizer. But we do know we are going to face all these increased costs. We do know we are going to lose jobs. There are varying esti-

mates of how many millions we will lose. But why wouldn't we go back to explain to our constituents that the EPA is getting ready to do something and the Congress is getting ready to say that is not the best path to go down, let us go down a different path and come up with a different solution? What the Congress granted the EPA to do, the Congress has the authority to take away or to delay.

Mr. ENGLISH. And if the Congress does that, obviously we are going to respond to that accordingly. But in the meantime, until a law is passed, we don't have much choice but to deal with the realities.

Mr. GOODLATTE. I understand you want to be in there negotiating for your allocation. But your fairness is not necessarily common sense. So my question is, if this were not the path that the Congress is presently taking, is there, in your opinion, other paths that would be better to pursue?

Mr. ENGLISH. I want to say I will stand forthrightly for common sense.

Mr. GOODLATTE. Well, I am going to define common sense the way I just defined it for you and take that as a positive answer. But I will suggest to you that it is fool's gold to simply say that if we make these necessary reallocations, that everything will be okay. We are still going to face those higher electricity costs and we are going into this without any idea about whether the technology is there to change that. We are doing nothing for nuclear power in this. If you had credits for nuclear power, why, we could raise the capital to build nuclear plants like France has done, like other countries are doing right now, and move away from greenhouse gas emissions that way. There are lots of other things that we could do, but this legislation doesn't get us there.

Mr. ENGLISH. I would agree all those factors need to play into it. It would be nice if we had a plan laid out for the next 10 years how we accomplish the objectives that are laid out in this legislation, and at the same time meeting our needs for electric power to keep this economy growing while at the same time we also kept electric bills affordable for all of our citizens. I would like to see such a plan laid out.

Mr. GOODLATTE. And a cost-benefit analysis for electricity customers, for farmers, for manufacturers.

Mr. ENGLISH. But I have seen no one who has laid out such a plan.

Mr. GOODLATTE. No. Absolutely none. Thank you, Mr. Chairman.

Mr. WALZ [presiding.] Thank you. That is our job, I guess, to lay that out at this point. So I am up now. And I said I got here the same way I became a sergeant major, by pure attrition. Everybody else quit before they got to that point. But I do really appreciate both of you being here. You are both incredibly important to the industry that drives my district in southern Minnesota. I am very proud about our diversity. I am also very proud and I would say to you, Mr. English, I too know that I have a large number of rural electric cooperatives. In fact, I believe Chairman Peterson and myself are in the top ten in those. Almost 175,000 people. And the one thing I can tell you—and I listened to you talk about this and trying to make it work. That is the attitude your people have always

taken. You electrified rural America, you brought prosperity and opportunities to rural America. It hasn't always been easy. You have 80 percent of the land and 15 percent of the people. Economies of scale and those type of things just don't work out so well. But the fact of the matter is the quality of life for our citizens in rural areas is just as important as the urban areas. And it is because you have done that. And the thing we need to keep in mind here, and I keep coming back to, is that all of us realize there are major flaws in the legislation. But I also think I will keep coming back to where Secretary Vilsack was, there are opportunities if we get this right. And every time I have talked to your producers out there, we have a very high rural portfolio standard. And the producers out there said we will get to it, give us the tools, give us the tools to get there and don't penalize our people.

I think it is important to keep in mind, these rural electric customers overall per capita make less than the average income. And, in fact, a large number of these people actually fall below the poverty line and it would be really felt. So this would be incredibly regressive on them. That is a huge concern for me. We need to get it right so that your producers can start benefiting from the wind that is out there, the biofuels that are out there.

So I would ask maybe—and this is probably Mr. West, more towards Mr. English on the generation side of this, and then come back to you—what tool would we need to give you? What would look good to you as we got this, going forward? Because I don't hear any of your people say we don't care about carbon emissions, we don't care about making this country energy independent. They said, "We are with you on this but you simply say it there, and then we are expected to carry it out where the rubber meets the road. We need the tools." What tools?

Mr. ENGLISH. If we had to restrict it to one tool and one tool only—there are many tools that would be very helpful. But if you are coming up to one tool that is most important, it would be technology. And we need it quick. So if any—from the Congress we need more money to speed up that technology. What a lot of people don't understand is we have a very narrow window here. We are short of capacity. All that capacity that was built up over the years, we have run out of that. So we are slap up against the wall from the standpoint of having enough capacity, being able to generate enough electric power to, in fact, meet the needs of our members, your members, your constituents over the next decade. So anything we can do to speed that up to get us that power is—

Mr. WALZ. I agree. And Mr. Stallman in the last panel brought up the point of don't leave us this hole, as we make this transition from a carbon-based energy and a carbon-based society, make sure that we are able to get there. And there are some amazing things out there and I tell you it is being done by private entities. And I am going to have to tell you, I am still a huge believer that biofuels have a way to go. People are acting like the biofuels—if they had asked of the Wright Brothers the day after they made their flight they would have wanted a transcontinental flight or they are going to scrap the whole dang industry.

We have a plant out in Winnebago that doesn't—it is 62 percent less in natural gas. It uses wind generation and floats a lava bed.

They palletize the leftovers for fertilizer and they capture the CO₂ and sell it to the local beer brewery. Those are things that are happening and have the potential. But if they are not supported—I agree with you, if we don't transition and help them get over that and we just say tomorrow it has to be there, I too—I have your sheet here of seeing where we fall. We would be incredibly disadvantaged and all of the gains you have made would be lost.

Do you think that is fair to say?

Mr. ENGLISH. I think that is fair to say. This is not going to be an easy handoff. This 10 years is where the real problem is, and that is what I meant about the sustainability. We desperately need to make certain that this thing is achievable. We need to make certain that we get the technology. You were talking about on biomass, that research and development to get this thing online quick. The urgency thing is where we seem to have a problem getting across to people. It is not something we can just drag on and on and on. We need the commitment and we need it now, and it is going to have to be sustained for the next decade until we get over this hump and then maybe you can take a breather.

Mr. WALZ. Mr. West, is that true? Could we be fighting—we want the private sector to do this. Is there a role for land-grant universities for research or anything to help you on this? Because again we need your industry.

Mr. WEST. I think for us the challenge is to take the pressure off natural gas use to produce electricity. I mean, natural gas is kind of the environmental fuel of choice because it has the lowest carbon content. Okay? But if we are going to get rid of coal or put so much pressure on coal, then we are going to go switching to natural gas. And who knows what that is going to—

Mr. WALZ. Do you think Boone Pickens was right, get that wind up to displace—his whole point was to displace that natural gas. Now he wanted to shift it towards mobile—

Mr. WEST. The problem is when the wind ain't blowing and the sun ain't shining natural gas is the backup.

Mr. WALZ. That is right. We need to get to where we are doing some things out there with injection of compressed gas. I mean, there are things out there but we are not there yet. And many of my colleagues share that concern.

Mr. WEST. I would say that probably the thing that needs to be done is we need to find a way to capture and sequester CO₂. Put the money in that so we can find a way to inject it, or do whatever we need to do because that will be the only way these coal plants will stay, if we can find a way to capture that CO₂ and inject it into the grounds and leave it there.

Mr. WALZ. And I share your concern. And I oftentimes say we will hear a lot of people debating this and we will hear in these hearings people saying that we need to go off coal tomorrow. Well, we need to turn these lights off and the air conditioner in here that is being generated by coal as we speak.

Mr. WEST. And then on the side—and make sure I get enough allowances to cover my direct and indirect costs over the next 10 years.

Mr. WALZ. I thank you both. The gentleman from Kansas. Thank you.

Mr. MORAN. Mr. Chairman, thank you. Mr. West, part of what you said that was most interesting to me was your comments about visiting with your counterparts from Europe, Australia, and other places. We had this conversation with the previous panel and one of my concerns is about our competitiveness. I am not sure your issue is competitiveness. Your issue, as you say, is survival.

Mr. WEST. Sure, 82 percent of the nitrogen we currently import is from countries that really are not interested in greenhouse gas reduction. I mean, I could talk to my European counterparts, my Australian counterpart, my Canadian counterpart, I can bring it up with my Arab Fertilizer Association counterpart, and he is looking at me like what the hell are you talking about.

Mr. MORAN. Is any of the fertilizer that we import into the United States today manufactured under the circumstances of strict regulations regarding CO₂?

Mr. WEST. The only one is we get about 70 percent of our nitrogen from Canada and about 60 percent of that is in Alberta. And Alberta is the only one that is really regulating fertilizer. And what they have done is—they do it a little bit different. Each facility has to have an emission intensity. But they took the processed gas, that CO₂ that comes from taking nitrogen out of the air, hydrogen from natural gas and making CO₂ and they took it and just put it off to the side, and said we are not going to count that in your emission intensity and that is the way they are doing it.

Of course the Canadians are looking very close at what the United States is going to do because they want to be equal in North America.

Mr. MORAN. Tell us what the impact of fertilizer costs and increases upon agriculture, how dependent is agriculture upon fertilizer in the United States?

Mr. WEST. Well, 40 to 60 percent of the world's food production is tied to the use of fertilizer. Now, the growth in the use of fertilizer is all outside the United States. The politics of fertilizer in the United States is how efficient can you be. And that is why we have been working with our protocols on trying to be as efficient as we can under the 4R nutrient stewardship system. But if I am going to produce ammonia, then I am going to produce CO₂. And that chemical reaction, I just can't make it any more efficient.

Now, we can capture the CO₂. I can sell it to Pepsi. We have a plant in North Dakota that pipes it to Canada and they put it in the oil shale. We can do some of those things. But I am producing that.

Mr. MORAN. Congressman English, the conversation earlier was about technology. How much more efficient in reducing CO₂ and other gases are our new electrical generation facilities as compared to what we have had in the past? Are we having quantum increases in the ability to improve that or is it marginal?

Mr. ENGLISH. According to the Electric Power Research Institute, as far as off-the-shelf technology that we can use to deal with withdrawing the carbon from those emissions and storing it in the ground or using it for some other purpose, we are probably a decade off, maybe 15 years. And that is assuming that we are willing to spend another billion dollars a year on research and development.

That is how difficult it is. That is the reason I keep saying this next decade is going to be extremely difficult. What you are doing, as far as new generation is concerned, you are pretty much eliminating coal, which has been in your primary fuel of generating electric power in this country. You are pretty much eliminating that as an option.

Mr. MORAN. So the private sector would spend little or no effort in trying to figure out how to generate electricity from coal and a more efficient and more environmentally friendly way? It just wouldn't be feasible?

Mr. ENGLISH. Yes, with the technology and the development that is involved, it is extremely complicated and difficult to do. If you think about the amount, it is a huge amount of carbon that you are going to have to do something with. Put it in the ground.

Let me just—one thing that I was always able to understand with this, as far as the complications, think about the liability issues that are going to arise from pumping that much carbon into the ground all across this country. Well, the Congress is going to have to deal with that. Can you imagine trying to get liability immunity in this country through the Congress for that kind of an issue? I mean, that will go on for years in itself. So you have a whole host of issues that are going to be involved for us to be able to bring the coal back online with the elimination of those emissions.

Mr. MORAN. Congressman, I want to explore just a little bit further your conversation about fairness. One of the things we did today is take a look at where—you are better to be in Washington State than you are in Kansas under this plan. And we then took a look at, for example, the income, the average mean income—I am sorry—the mean income in Seattle is about \$46,000, in Seattle, Washington. The mean income in my largest city, Salina, Kansas is about \$36,000. A typical county seat in Kansas, Belleville, has a mean income of about \$26,000. So what we are doing is we are transferring wealth, income from those who can least afford it, at least in this example of Kansas and our mean income, to those who are better able to afford it.

So when you talk about unfairness, in many instances our rural communities in the states that have lots of rural areas where coal is the primary provider of their electricity, their incomes are generally less than the coasts which, appears to me, this bill is designed to better protect. So we are taking income, we are increasing the cost of living, the cost of being in business in areas of the country that have low incomes, and we are protecting in this process those areas of the country that have high incomes—higher incomes.

Mr. ENGLISH. I don't know if that was the intention, but that seems to be the result, yes.

Mr. MORAN. Okay. Thank you very much.

Mr. WALZ. The gentlewoman from Illinois.

Mrs. HALVORSON. Thank you, Mr. Chairman, and thank you, panelists. Mr. English, I have a couple of questions for you.

As a general matter, what I am hearing from you is that your group believes that the free allocation of allowances is preferable to auctioning off the allowances. Apparently because it is a better,

more direct way to protect consumers from rate shock. Can you explain that a little further for me?

Mr. ENGLISH. Sure. If the allowances that you have, what you are going to provide by the Federal Government obviously if you are going to provide those allowances, and the way that most of the legislation is done is through the distribution system, the local distribution companies is the way to describe it. In the case of electrical cooperatives, it would be our distribution system. Those are the closest to the people. Well, those allowances have to be used to generate electric power. So if, in fact, you are using those allowances to generate the electric power, then you can minimize the cost to your consumers.

If, on the other hand, you don't have any allowances, and particularly if those allowances have been auctioned off and what you would likely have are people who have deep pockets, not folks in small distribution cooperatives and small towns. If, in fact, you have to go to New York City to a market and you are going to have to compete on that market to buy the number of allowances to allow you to generate enough power to take care of your members' needs, that is going to be a very expensive propose.

So that is where the real issue comes down. What do you do with those allowances? And there has been some debate, I know, within the government as to which way you go. I know some have suggested well, if we go out and auction off all of these allowances, we will raise just about enough money to pay for health care in this country. Well, in effect, if you are going to do that, that gives you some idea of the magnitude of increase you are going to have to have in electric bills over and above what they would be otherwise, otherwise being providing allowances for free to those consumers.

So it is really a consumer issue and as we all know, whether you are talking about the taxpayers which seem to be the same people who are the consumers, it is a question of which way do you do this. So it may be an indirect, a politically acceptable way to raise taxes as opposed to giving those allowances—and I am pleased to say that the Committee did make a big step in that direction in giving most of the allowances away. They did recognize that they needed to do something for consumers. The only problem was that they didn't distribute them fairly so that the people that are going to be hit the hardest, hit the most are getting a proportionate share.

Mrs. HALVORSON. Okay. Thank you. And then the only other question I have is you also recommend that the bill allocate emission allowances to local distribution companies based upon the carbon content of the fuel used to provide the electricity sold by the LDCs. By eliminating the portion of the utility allowances allocations based on the sales, wouldn't this deny the benefits to the customers of the early adopter utilities because these utilities made early decisions to increase their emphasis on energy efficiencies and renewables and other low emitting technologies, which in some cases resulted in higher rates for their customers, me being one of them? Because don't these customers, many of them who live in my State of Illinois and my district, deserve relief from this bill just like any other customers?

Mr. ENGLISH. I would say no. And the reason that I would say that—let us just think about this a minute. I know electric cooperatives and municipals back in the 1930s and 1940s when we were building all these dams in this country for flood control, the Federal Government is trying to pay for that. And we contracted to buy that power at rates that were above the market. But since that time, we have gotten a huge benefit out of that because today those electric bills, those electric rates out of those power marketing administrations is actually less, considerably less than what the market price is. So we have been rewarded. We got more market prices.

Now what we are saying is due to the actions of the Federal Government we are going to require those people who made investments, and as I just explained in the case of electric cooperatives, $\frac{3}{4}$ of all the generating facilities that we built in this country were built because the Federal Government required us to use coal instead of natural gas, so we can keep those fertilizer prices down. That we now turn around and say, well, but we ought to give those allowances to those folks who have the cheapest power in this country to begin with, how is that fair?

Mrs. HALVORSON. Well, it is probably cheaper because all the investments that were made to make it more expensive now.

Mr. ENGLISH. Back in the 1930s and 1940s and we did it. And our members are recognizing and understand that. And from time to time, we have seen about every 10 or 15 years, the Federal Government makes a move. And this was last done, I believe, under the Clinton Administration, in which there was an effort saying, well, we ought to sell off those power marketing administrations and put this money into the Federal Treasury. Well, all these folks out there who were from these rural areas that had absolutely no low cost hydropower but were using coal-fired generation, even though the rates of those folks up there in the State of Washington were less, they stood up in the Congress and their elected representatives did and said that was wrong, that is wrong, we paid for that, we made that investment. We made that very point.

Now we have the reverse. We have a situation in which we have those folks from those areas that were required to build those coal-fired plants, as opposed to using natural gas, and now they are being told, not only are your electric bills going up because we are going to remove those carbon emissions and we are going to make it tougher and tougher, you are going to have to buy some extra allowances in order to generate any power at all, but then on top of that we are going to penalize you. We are going to add a penalty on top of that.

And as I said, I am very proud at least of our co-op folks that are saying, hey, it is time to return the favor to our neighbors. And while we would get a huge windfall off of this, we get over 3,000 percent of any needs that we have and we could go sell all that on the market and get this huge windfall, it is going to be at the expense of our neighbors down the way here who stood up for us when they were trying to eliminate our low cost power. Now, that is what—that is what neighbors are about, and that is what the co-op program is all about, and that is the reason we stick together. And that is the reason we are saying this all should not be about

windfalls for regions of the country. It is supposed to be about reducing carbon emissions, carbon emissions.

If we just go back and stick to the basic thing we are trying to fix, the Clean Air Act, we are trying to reduce carbon emissions, we are trying to address climate change. Let us just stick to the basics. If we are going to try to give huge windfalls to one region of the country or the other, let us not do it under this bill. It is going to be difficult enough as it is. If we are going to try to provide a windfall from one region of the country to the other, let us not pile on the people that are going to get hurt the worst. It is not going to be the utilities. It is going to be the individual consumers. That is what I would urge.

Mrs. HALVORSON. Great. Thank you.

The CHAIRMAN [presiding.] I thank the gentlelady. The gentleman from Pennsylvania, Mr. Thompson.

Mr. THOMPSON. Thank you, Mr. Chairman. Mr. West, I want to thank you for mentioning that natural gas will be capped and let me add taxed under the Waxman bill because it is a fossil fuel, and also for pointing out all the other reasons why natural gas is so important. Personally, I believe natural gas should be a major component of any energy policy that this Congress endorses for a variety of reasons. Number one, as you mentioned, natural gas is not a rural market, meaning that we control the price and the supply of it here in the U.S. Number two, we have a tremendous amount of it right here at home, offshore and onshore. For example, my home district—80 percent of my home district in Pennsylvania rests above the recently discovered Marsalis shale and natural gas formations virtually on tap and as a net worth projected to be anywhere from \$500 billion to a trillion dollars. And finally, it is a clean fossil fuel.

And my area has a significant number of dairy farmers who are struggling to operate because of milk prices. And while there are a variety of reasons why milk prices are low, I believe that high and unsustainable energy prices is a part of that reason.

Is that an accurate statement to make in your opinion?

Mr. WEST. Yes. I think energy—there is a lot of money tied up in this piece of legislation. I will try to give you an idea. Let us say the Congressional Budget Office says that the cost of an allowance may be anywhere from \$16 in 2012 to \$26 in 2025. So we took \$20. I heard anything from \$15 to \$20. Let us say we get 75 percent of our emission allowances given to us. We have to purchase 25 percent. That is \$300 million. That is a lot of change laying around here. And if we didn't get any, it would probably be over a billion dollars. So energy is throughout our economy. You raise the price of energy, everything is going to go up.

Mr. THOMPSON. And my dairy farmers—all dairy farmers are going to be hit hard by that during these especially tough times. I have been circulating a letter that the Pennsylvania Public Utilities Commission sent to the whole state delegation here in Washington. And their findings are concerning to me and I just reference just a few sentences from that letter.

Pennsylvania is the fourth largest coal producer in the nation, distributing over 75 million tons of coal each year. Roughly seven percent of the nation's coal supply is in Pennsylvania and 58 per-

cent of all electricity use here comes from coal. However, if the Waxman-Markey bill were to pass, Pennsylvania is looking at a bleak scenario by 2020, a net loss of as many as 66,000 jobs, a sizable hike in the electric bills of residential customers, an increase in natural gas prices, and significant downward pressure on our gross state product.

And we are far from convinced that the negative impacts this legislation could have on our state's economy are fully understood and appreciated, and the cost estimates are staggering.

Mr. English, are you aware of other states putting together studies such as this that will demonstrate how much electrical costs will skyrocket under the Waxman bill?

Mr. ENGLISH. Well, I certainly hope that they are. I am not sure how many states have picked up on this and have really started focusing on it that much. I know that some of the public utility commissions have begun doing that. I know the National Association of Public Utility Commissioners is looking at some of these costs like that and looking at the distribution of these allowances and how they would impact various entities, but mostly from the standpoint of the generation of electric power, not just as the economy at large, but there is no way that you can raise energy costs and not have it affect the entire economy.

I would like to make one other point here that is good for us to keep in mind. You go back all the way to 1932. Franklin Roosevelt at that time made the observation that this country had arrived at the point that electricity was no longer a luxury, but it had become a requirement. If we are not careful here, we have an excellent chance that we are going to take a huge step back, and for many of our citizens we are going to find electricity once again becoming a luxury, not a necessity, and it is not just going to be people in rural America.

Mr. THOMPSON. Thank you, Mr. English. Mr. Chairman, I ask, if I could, permission to just submit that letter from the Pennsylvania Public Utilities Commission just for the record.

The CHAIRMAN. Without objection, so ordered.

[The document referred to is located on p. 228.]

The CHAIRMAN. I thank the gentleman. The gentlelady from Wyoming.

Mrs. LUMMIS. Thank you, Mr. Chairman. And it is amazing to have even the Pennsylvania Public Utility Commission coming out against this bill. You would think that there would be deference to states that already regulate these industries.

Mr. English, it is nice to meet you and I want you to know that there are 11 rural electrics in Wyoming, that they cover 66 percent of the area, and 40 percent of the their residential customers in Wyoming are served by rural electric co-ops. So I am really grateful that you are here this evening.

Mr. ENGLISH. The President of our association is from Wyoming.

Mrs. LUMMIS. And a dear wonderful constituent of mine. So thank you for that.

Mr. WEST. We have a nitrogen plant in Wyoming.

Mrs. LUMMIS. Now you are just buttering me up.

I did want to mention that here is an example of the kind of costs they estimate they are going to incur. One of our rural co-ops

that serves my state estimated that under this legislation it will cost its customers alone \$17½ million by 2012 more, \$31 million by 2022, and \$59 million by 2030. Now, that is with less than 168,000 rural cooperative customers total in Wyoming, and this is just the estimate of one of those 11 co-ops that serve Wyoming.

Would you say those estimates are the exception or the rule for the kind of rural co-op customers that you are talking to?

Mr. ENGLISH. Obviously it is going to vary from state to state and region to region, and even within the state it will vary. But, you are going to find an awful lot of numbers similar to that all across the country, to be honest about it.

Mrs. LUMMIS. I am hearing that from other rural electric co-ops as well. So you confirmed what I suspected.

You also mentioned that the emission levels that are in this bill that would have to be reached by 2020 is extremely ambitious. How would we get there? Have you talked to some of your providers about if they had to meet that standard, how can they get there?

Mr. ENGLISH. It is not going to be easy. I did mention natural gas. I think a lot of our members would have to convert. Natural gas doesn't contain carbon. It wouldn't be that we would necessarily want to go down that road because it becomes more volatile as far as price is concerned, it is less dependable. Obviously it is very disruptive to folks in the fertilizer business and a lot of other businesses around this country. That is not something we choose to do. I don't think most people understand that for baseload generation or even for peaking, if you start using a lot of—using natural gas, you will have a huge amount of consumption. We found some new natural gas fields since 1970, and I am very pleased to say that those predictions by the government back in 1978 were wrong. But at this particular point, if you start using it for baseload generation for electric power, and that is probably what we are going to be driven to in the short term over the next 10 year, then it is going to have a huge impact. It will be a massive amount of gas that will be required for that. I don't think it has been calculated by anybody yet.

Mrs. LUMMIS. We have some studies that show that as you have to ramp down wind energy when it quits blowing and then ramp up natural gas power to meet that change in load, that it actually emits more carbon than if you had run that natural gas plant flat out, because of the inefficiencies of having to ramp up so quickly to get a replacement baseload for that wind source. So it has got some bugs in it.

Mr. ENGLISH. It is challenging.

Mrs. LUMMIS. It is challenging. Thanks.

Mr. West, a question for you as well. You testified that this cap-and-trade proposal would likely force the domestic fertilizer industry overseas to countries that have no carbon reduction policies in place. So they will be producing fertilizer. So will the American farmer quit using fertilizer or will they just buy fertilizer that is produced overseas?

Mr. WEST. No, they are buying it now. We import about 55 percent of the nitrogen that we consume here in the United States.

Mrs. LUMMIS. So we are going to send the jobs overseas, we are going to send the plants overseas, we are going to send the tax revenue overseas and then send dollars overseas to buy product that we are producing in the United States now, at least to the tune of 45 percent of our production?

Mr. WEST. And we are going to probably buy that from areas of the country with lower gas prices, and that is the Middle East, Russia, Venezuela. That is where we are bringing it in now. I have members, I have producers, importers that do that. They go on the world market and buy it. And, last year when we saw that run-up of fertilizer prices, it was because of the demand in the world and the struggle that those guys were having bringing product to the United States.

Mrs. LUMMIS. I can tell you I also serve on the Natural Resources Committee, and we had a gentleman come in and testify that if the United States cut its carbon emissions to zero and Europe did, Japan did, and China, Russia, and India go on as planned, that we will have no impact on global climate anyway.

Mr. WEST. That is true.

Mrs. LUMMIS. Thank you. I appreciate your testimony.

The CHAIRMAN. I thank the gentlelady.

Does any Member have a closing statement? I guess the witnesses—I can probably excuse you. You have probably been here long enough.

I think Mr. Moran has a very gripping and edifying closing statement if you want to remain for that. But otherwise, you are excused. We appreciate very much you being with us and your testimony and—

Mr. MORAN. Mr. Chairman, I listened to Mr. English and Mr. West.

Mr. WEST. I would love to hear it.

The CHAIRMAN. Mr. Moran is recognized for 5 minutes.

Mr. MORAN. Mr. Chairman, thank you very much. I appreciate this hearing. I think it is very useful. This hearing is one of those things that happened in this Agriculture Committee that I think means a lot to us, and I am appreciative of you hosting this hearing.

I do believe that this is one of the pieces of legislation that may be the most detrimental, damaging things that we could do to agriculture, to farmers and ranchers, to small businesses across the country. From its inception in the House Energy and Commerce Committee less than 1 month ago, this is—a 1,000 page document has been forced upon Members of Congress with little time to consider the real consequences. One of the problems we have encountered here today is that there is no solid economic analysis on how this ill-conceived legislation will really affect the economy.

Preliminary evidence, and again it seemed to me that people were a little more than guessing, shows that it will increase the cost of energy and with it the cost of everything we utilize every day in our lives. And in its current form, agriculture will have little, if any, ability to recover those additional costs. This will not only lead to decreased profitability in agriculture, but increased food prices for all Americans.

What we do know is that the Congressional Budget Office has said that this bill will raise government revenues by \$846 billion in the first 10 years of this legislation's life. In layman's terms what that means to folks back home is this is a huge tax increase. It is a tax increase so large that it could pay for the commodity title of the 2008 Farm Bill 24 times over. According to the 2007 Agricultural Census, \$846 billion is over 15 times the total U.S. agricultural sales for 2007.

And this is only the beginning. The legislation we discussed today is permanent. And after the 10 year period analyzed by CBO, free carbon allowances are phased out while auction carbon allowances are phased in. This means future generations will be forced to pay even more than the initial 10 year budget, analysts concluded. Although billed as cap-and-trade, in reality H.R. 2454 is cap-and-tax. It is a tax bill that will be forced not only on agriculture in rural America but our entire country.

Instead of government levying a tax directly on the American people, this legislation disguises the tax as a carbon allowance auction that subsequently requires electrical generation companies, refiners, manufacturers, and others to collect that tax imposed through increased costs.

What is worse, due to the way this legislation is written, mid-western states like my own of Kansas will bear the brunt of the economic blow because of the inequality in the way that carbon allowances are allocated, giving excess carbon allowances to East and West Coast power plants while shortchanging allowances given to Midwest electric cooperatives. I have seen preliminary estimates that indicate that rural electric cooperative customers in Kansas would have their utility bills increased some place between \$200 and \$1,000 per year, and the consequences go beyond our ability to turn on our lights in rural America. Our rural communities are the places where we must travel greater distances for work, school, and medical care, and we will pay a disproportionate share compared to our urban cousins who have shorter distances to drive and have access to public transportation.

I am particularly concerned that many in agriculture believe that agriculture will somehow be made whole under this legislation. We had a lot of conversation about offsets today. But under the Waxman-Markey bill we know that this is not the case. The word *agriculture* is mentioned seven times in this bill and it is not mentioned once in the section that defines *offsets*.

Instead, H.R. 2454 directs the EPA to define the world of carbon offsets. This is a mistake that will lead to few benefits for agriculture and increase the ability of EPA to further intrude upon our farms and ranches. We know that EPA is not farmer friendly or even farmer neutral. It has consistently made determinations that harm producers and fail the common sense test. This includes EPA's recent finding that agriculture will sequester significantly less carbon than determined under the 2005 EPA study, and includes the proposed rule to take indirect land costs into consideration when determining a carbon footprint, as well as EPA's recent decision to regulate farmers with a sprayer as a point source that impose costs and a permit system. EPA cannot be trusted with agricultural carbon offsets.

Even if the offsets are defined and USDA is given authority over them, on the macro-scale it is difficult for me to see that agriculture will even get close to mitigating the increased costs of inputs caused by the cap-and-tax system. Some sources disclose that agriculture can sequester nearly a half a ton of carbon through practices like no-till. If carbon trades between \$15 and \$40 per ton and the cost per acre of corn production is increased by \$40 to \$80, the numbers won't add up. In a best case scenario, a farmer could mitigate half the cost of this legislation. In a worst case scenario, a farmer could mitigate perhaps ten percent of the cost of this legislation. Either way, it does not bode well for our farmers.

This analysis does not even take into account the livestock sector, which will be equally disadvantaged. And unlike crop farmers, operations like cow/calf operations and feed yards have few opportunities to accumulate carbon credits.

This Committee must act responsibly and continue to hold hearings. Further examination of this legislation is a necessity. The current pace set by the Speaker of the House must be abandoned until a better, objective research can be conducted. Regardless of the legislative pace, we must act to correct the irresponsible decisions that have been made and included now in this legislation.

Mr. Chairman, I would ask, if we were in a business meeting I would move, that either we have a markup of this legislation or would move that the Committee report this bill unfavorably, with a recommendation that it be reported unfavorably to the House of Representatives. I am sorry that is not an option tonight. I hope we have further opportunities to continue to pursue this legislation. But I can tell you that if we can't get there, common sense demands that we defeat this bill on the House floor.

Congress infrequently gets things right when we take a lot of time and have ample opportunity to study and research. We certainly never make good decisions when we are rushed by arbitrary deadlines.

So, Mr. Chairman, agriculture demands something different than this bill. Rural America demands it, and the American public demands it as well. Anything less is an abdication of our responsibility as elected officials and the constituents that we care so much about.

Thank you, Mr. Chairman.

The CHAIRMAN. I thank the gentleman, and I guess the gentleman from Minnesota has a closing statement as well.

Mr. WALZ. Thank you. And I thank the Members who are still here and the witnesses and those that are sticking around. This is a very important hearing, a very important issue.

First of all, I want to be very clear. Climate change is real and it is a serious problem. Concentrations of carbon dioxide in the atmosphere are up 30 percent in the Industrial Age and at the highest concentration in 650,000 years, causing massive changes to the climate, affecting hundreds of millions of people.

Nearly all national and international scientific bodies agree that human activities are affecting climate change. In fact, 97.4 percent of all climatologists who deal specifically with the science of climate agree on a consensus that it is a concern. There is only one, not an individual voice, but only one national or international scientific

agency that will not agree with that, and that is the American Association of Petroleum Geologists.

With that being said, we have an obligation to our children to address this problem, to set an example for the world, to strengthen our economic security, and gain energy independence. However, it must be done wisely. It must make sense, and it must do no harm.

Mr. Chairman, I thank you for the opportunity to bring together these experts. And I, along with my fellow Members of this Committee, have serious concerns with this legislation, particularly as it pertains to rural America and the agricultural community.

We all know we must do our part to reduce our carbon footprint and that our agricultural producers have been leaders in this area. I am proud to say that southern Minnesota is a leader in renewable energy technology. We are the fourth leading producer of wind energy in the nation and we are leading in biofuels. We have moved to a level now where we have entrepreneurs creating small, mobile ethanol plants of 1 million gallons that are using very little energy and are being bought with—the Indian Trade Minister was in my office to buy these and use the remains of tapioca in the developing world. This has a great potential to reduce the carbon footprint in the developing world, create jobs in southern Minnesota, and move us to the next level we need to get to.

We are all part of that solution, but I have serious concerns as it stands today. My colleagues have time and time again pointed those out. I think many of us on this Committee have heard, and quite disappointedly, I may add, that experts in this area like yourselves sitting here and the previous panels were not consulted to the degree they needed to.

I think Mr. Moran made a very good point. I believe in this organization and this body and the people that are here to bring up good points and counterpoints to craft a piece of legislation that will do all the things we want to see it do. But at this point many of us have yet to see this legislation. We will continue to work on it. I know good, common sense solutions come out of this Committee as often as any other, and it is a pleasure for me to be here, and I would share Mr. Moran's wish that if we could mark this up and have a chance at this, you would end up with a better product.

So, Mr. Chairman, I thank you for this opportunity. We have our work cut out, but I am optimistic that we can create a positive if we do it right. I yield back.

The CHAIRMAN. I thank the gentleman. The gentleman from Oklahoma.

Mr. LUCAS. Just simply to note, Mr. Chairman, we in the minority appreciate this hearing. This has been 7 hours well spent on a critically important topic, and thank you.

The CHAIRMAN. I thank the gentleman for hanging in there until the end. So, with that, does anybody else have anything else for the good of the order here?

Under the rules of the Committee, the record of today's hearing will remain open for 10 days to receive additional material and supplementary written responses from witnesses, any questions posed by a Member to the panel.

This hearing of the Committee on Agriculture is adjourned.

[Whereupon, at 9:05 p.m., the Committee was adjourned.]

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[Material submitted for inclusion in the record follows:]

SUBMITTED STATEMENT BY HON. COLLIN C. PETERSON; ON BEHALF OF UNITED EGG PRODUCERS

This statement represents the views of United Egg Producers (UEP) on the American Clean Energy and Security Act (H.R. 2454), as reported on May 21 by the Committee on Energy and Commerce. Because this legislation will have significant—and in many cases detrimental—effects on American farmers, UEP appreciates the leadership of the Committee on Agriculture in scheduling a hearing to learn the concerns of our nation’s food producers.

Egg Farms: Good Environmental Stewards

Egg farmers are good stewards of the environment. We produce an abundance of safe, nutritious, affordable high-protein eggs in ways that make responsible use of our natural resources. We comply with complex regulations under the Clean Water Act to ensure that we do not discharge nutrients into the waters of the United States. Our industry is cooperating with the Environmental Protection Agency in a multi-year study of air emissions from egg farms, in order that regulation can be based on robust scientific data. UEP itself is the recipient of a Conservation Innovation Grant from the U.S. Department of Agriculture to introduce producers to new technologies for mitigating air emissions from our operations.

Egg farms are not a significant source of greenhouse gases (GHGs). The primary gaseous emission from egg farms, ammonia, is not a GHG, although our industry is focused on mitigating ammonia emissions as well. However, egg farms do routinely contribute to a reduction in the demand for fossil fuels because manure from our henhouses is applied as fertilizer on nearby farms. When these farms use this organic fertilizer, their need to use synthetic, fossil-fuel-derived fertilizer is eliminated or reduced.

Production Costs: Already Going Up

Like other livestock and poultry industries, egg farmers have seen **major secular increases in their cost structure during recent years.** More than half of our production cost is feed, and prices for both corn and soybean meal—the primary constituents of poultry rations—have moved to significantly higher levels. Last summer, crop prices hit all-time highs, as did the price of crude oil. These prices have declined, but not to traditional levels. It seems likely that our feed costs will be permanently higher than the levels of the last few decades.

Rising energy prices have also affected us. In addition to their impact on feed prices, higher energy costs also raise our cost of transporting eggs in trucks, refrigerating eggs in storage and transit, and providing ventilation to our henhouses.

With this backdrop of rising costs, it should not be surprising that egg producers—like many other farmers and ranchers—are concerned about the possibility that climate change legislation will increase our costs still more. **As far as we can tell, H.R. 2454 contains no provisions to compensate our farms for these higher costs.**

Carbon Offsets

Supporters of H.R. 2454 often say that agriculture will benefit from selling carbon credits to businesses that need to buy them. It is true that U.S. agriculture is sequestering carbon every day through a variety of practices. **However, the potential for additional sequestration may be less than earlier believed,** according to a study by the EPA cited in the *Des Moines Register* on June 7. Because carbon-sequestering practices like reduced tillage are now widely adopted across American agriculture—in contrast to outdated data used by EPA in making earlier estimates—the total amount of *additional* sequestration that can be achieved is necessarily less. In other words, because agriculture is doing a better job of safeguarding our natural resources than EPA thought, farmers will be compensated much less! And the EPA study also found that most additional sequestration potential lies in the forestry sector, not in crop or livestock production.

Egg producers’ potential for carbon sequestration is limited in any event, simply because we are not a significant *emitter* of carbon or other GHGs. We do feel strongly, however, that proper land-application of manure should be a practice eligible for credits because of the reduction in fossil fuel demand achieved.

International Competitiveness and Consolidation

We are also concerned about how higher fuel costs will affect our industry’s international competitiveness. The vast majority of eggs are produced and consumed domestically, but our industry relies on export markets for some sales of both shell eggs and (to a greater extent) processed egg products. As our costs go up and those

of offshore producers do not, **we can expect both increased imports and reduced exports.** Both trends will be detrimental to U.S. egg farms.

Our industry, dominated by multi-generational family-owned businesses, does not have the power to simply pass along cost increases to our customers. As agricultural producers, we are unfortunately price-takers, not price-makers. As production costs rise, the inability to automatically pass them along means it is likely that some producers will fail and be acquired by larger competitors. Thus, one predictable result of H.R. 2454 in the egg industry may be **further consolidation in the industry and the demise of some farms that have been in business for many decades.**

A Need for Better Analysis

We agree with several Members of Congress who have expressed the view that we need **a better understanding of H.R. 2454's real impact on our economy before proceeding.** It would be a mistake for the House of Representatives to rush passage of this bill to meet an arbitrary deadline before receiving economic analyses from a variety of independent sources. The bill's effects are likely to be large, and raise complex analytical questions. It is sensible for Congress to make an informed decision before putting into place policies that will profoundly reshape the U.S. economy.

This is not an argument in favor of delay for delay's sake. Rather, it is an argument that if Congress acts immediately on a bill that has been available to the public in its final form for little more than 2 weeks, lawmakers' decision cannot possibly be a fully informed one. **We believe legislation of this magnitude should be passed only after full, objective expert analysis from multiple independent sources.**

Priorities for Legislation

When and if Congress does proceed with legislation, we believe it is critical that **the U.S. Department of Agriculture administer any agricultural offset program.** USDA's knowledge of agricultural science, industry practices and farm structure—as well as the Department's long experience in running programs for the farm sector—makes it rather than EPA the logical choice to administer an offset program.

In addition, we believe legislation should seriously address the issue of how to **mitigate cost increases for agricultural producers,** in order to avoid reducing the number of family farms and also prevent the migration of production capacity offshore, where GHG regulations will not apply. Finally, we urge Congress to instruct Federal agencies that some **priority practices,** such as proper and responsible land-application of manure, should be eligible for offset credits.

UEP appreciates the chance to provide these comments for the record, and urges that Congress act on H.R. 2454 only after gaining a better understanding of how the legislation will affect the economic viability of the U.S. agricultural sector.

SUBMITTED STATEMENT BY HON. COLLIN C. PETERSON; ON BEHALF OF ROBERT J. LOONEY, VICE PRESIDENT, GOVERNMENT AFFAIRS, CHS, INC.

June 10, 2009

U.S. House of Representatives,
Committee on Agriculture,
ATTN: ANNE SIMMONS,
Washington, D.C.

Subject: Written comments for The House Committee on Agriculture that will hold a hearing June 11, 2009, entitled "*Climate Change*"

Comments

General: CHS, Inc.¹ is our nation's largest farmer-owned cooperative, and we appreciate the opportunity to provide comments on this extremely important topic to rural America. Among our business units that support rural communities and pro-

¹CHS, Inc. (www.chsinc.com) is a diversified energy, grains and foods company committed to providing the essential resources that enrich lives around the world. A Fortune 200 company, CHS is owned by 350,000 farmers, ranchers and cooperatives, along with thousands of preferred stockholders across the United States. CHS supplies energy, crop nutrients, grain, livestock feed, food and food ingredients, along with business solutions including insurance, financial and risk management services. The company operates petroleum refineries/pipelines and manufactures, markets and distributes Cenex® brand refined fuels, lubricants, propane and renewable energy products. CHS is listed on the NASDAQ at CHSCP.

duction agriculture, we own small petroleum refineries—one in Montana and majority owner of one in Kansas. We in association with 36 other **small business refiners (SBRs)** are the predominant providers of fuel to rural communities and agriculture.

Whereas many in Congress and agriculture look at the opportunities for farmers to gain some *value* under the cap-and-trade programs proposed in various greenhouse gas (GHG) legislation, **the costs of GHG legislation to farmers and rural America have been virtually ignored.** In fact, many believe that farmers could only be net winners under ‘cap-and-trade’. We do not. And that is the focus of these comments.

Specifics: Under any cap-and-trade program, the manufacturers of agronomic and energy inputs needed for farmers to raise their crops and for agribusinesses to process farm commodities into food will have to pay for the added GHG costs they incur. Facilities which provide those inputs, such as petroleum refiners, fertilizer manufacturers and electricity generators, will have to buy GHG allowances and carbon credits to offset their own GHGs. Many of these type facilities are owned by large businesses. However, many, particularly those that are located in (and therefore provide local jobs for) rural areas and/or serve rural areas, are small business entities and/or are owned by farmers. Our comments highlight issues for SBRs and farmers.

Take petroleum refiners for example. There are many GHG issues for SBRs because of: (1) their location, (2) their ownership, (3) the GHG they are responsible for, (4) their role in the nation, (5) the costs to a SBR, and (6) the negative impact on farmers.

Location: Of the 149 refineries in the United States, 37 are small business refiners (SBR).² They provide about 13% of our nation’s petroleum need, but most of the Midwest’s needs. However, whereas the large refiners are along the coasts and near Chicago, almost all of the Midwest, Plains and Rocky Mountain states—the United States bread basket—are serviced almost exclusively by SBRs. This means that rural America and production agriculture are dependent on the continued profitable existence of those 37 SBRs for not only local fuel products, but also for local jobs. A review of the *attached map*, with the locations of small and large U.S. refiners, shows how SBRs predominate mid-America

Ownership: Mid America is dependent on the petroleum products provided by SBRs. Of the 37 SBRs, three refineries (located in Montana, Kansas and Indiana) are owned by farmers themselves. These three refineries are called refiner co-ops and together they provide about 60% of the fuel used by farmers and cooperatives in the United States. CHS is a refiner co-op. Any GHG costs it incurs must be passed on to its owners—its 350,000 farmers and ranchers. *Any GHG cost not passed on is a direct loss to farmer patronage.* Either way, these farmers lose. In addition, many SBRs are almost single-business focused and lack business breadth and diversity to mitigate high GHG costs. Many of the SBRs have only their refining platforms and none have crude oil reserves. Thus for many SBRs their income is derived mostly, if not only, from the profitable sale of petroleum products and not from crude oil which is often very high value. This makes SBRs very vulnerable to onerous GHG legislative and regulatory costs.

SBR GHG responsibilities: Unlike any of the other industrial sector facilities that will be covered under cap-and-trade legislation, petroleum refiners will have to account not only for their smokestack emissions, but also for the carbon dioxide equivalents in their products.³ **(This is the most critical aspect of the legislation for SBRs.)** Thus, refiners must account for the GHGs they emit from their smokestacks and the GHG within their gasoline, diesel, jet fuel, asphalt and pitch (used in shingles). Those petroleum products account for nearly 90% of all their GHGs for which refiners are responsible and under the current proposed House climate change legislation will not count towards the calculation of free allowances. Such a high percentage of GHGs in fuels means they must pass the costs along to the consumers. Since SBRs are almost the sole providers of fuel to agriculture and rural communities that means those customers will see significant cost increases. Those cost increases come not only from increased fuel costs, but also from within other inputs they use—electricity and fertilizer to name two obvious ones.

Role of Small Business Refiners (SBR). Given this Committee hearing focused on agriculture and rural America, it is important that the House Committee on Agriculture direct its attention to the SBRs themselves from an oversight responsibility.

²Small business refiners are those defined under the American Jobs Creation Act of 2004 (found in the conference report 108–755 to the bill H.R. 4520, page 527).

³Of the GHGs a refinery would be responsible for under a cap-and-trade system, about 10% would be from its smokestack emissions and about 90% from its petroleum products.

SBRs occupy a unique niche not only in the petroleum industry but also geographically. In repeated legislation and Federal regulations, refiners in the Midwest have been given special recognition and help for the critical role they serve in geographic regions and because they are key players in the overall supply and distribution of petroleum products to rural areas. As major providers of off-road diesel for farmers, jet fuel for commercial and military aircraft, asphalt for road construction and pitch for shingles, they provide key elements to many sectors of the economy. Any increased GHG costs for these products must and will be passed on to the consumers. GHG costs that cannot be passed on threaten their operation, maybe even their existence, and negatively impact rural areas by creating fuel shortages in areas where large refiners do not tend to operate—that is the 22 states of Mid America.

Cost of GHGs in Fuels: Although CHS would urge the Committee to look at other input costs to farmers such as from rural electric cooperatives and fertilizer production, we want to provide an example of only the *GHG costs of fuel* to a farmer-owned, refiner co-op, whose majority customers are farmers themselves. Although we would incur costs for the GHGs in both emissions and in fuels we produce, we looked at the costs of buying GHG allowances and carbon credits *only for our fuel* production.

In early July 2008, when carbon credits were trading in the European Union (EU) at \$40/ton we did some analysis on the impact on CHS. Although the jet fuel, asphalt and pitch we make have GHGs, we ignored them in calculating our GHG costs. Instead, we determined GHG costs for gasoline and diesel only and calculated that it would cost CHS \$683 million in *year one* under a cap-and-trade program! Although the actual EU trading cost was \$40/ton this \$40/ton was also the midrange figure that EPA used in its calculations of four pricing/cost scenarios of cap-and-trade. That \$683 million to us translates into a 38¢ per gallon increase to consumers. Add to that the GHGs in other petroleum products like asphalt, jet fuel and pitch, and the smokestack emissions, and it would be closer to 50¢ per gallon. We would have to pass that on to the customer. If we included all petroleum products and smokestack emissions the GHG costs are higher than 50¢. So as we pass along the \$40/ton costs, what do those few farmers who decide to sell carbon sequestration credits get as income from selling credits to help offset those costs? **Not as much as some people believe.** The reasons follow next.

Value of carbon sequestration credits for farmers. Although only a few U.S. companies have been paying for credits, some farmers have been selling carbon sequestration credits and earning income. Many of those farmers have been selling their credits through 57 credit aggregators. Two, the North Dakota Farmer's Union^[1] (NDFU) and Iowa Farm Bureau^[11] (IFB) have been active. How do their programs work? Although there are many details in contracting, in general they have certain commonalities. They buy credits by contract, most of which are for 5 years. They pay farmers not based on daily fluctuations but across a range and then fix the price as an average. Payments to farmers are not lump sums but every 6 months. In 2008 the NDFU and IFB both averaged near \$4.50 a credit. That \$4.50 would have been the income to a participating farmer. But what would have been his costs?

Net back to farmers. What could be the financial impact on farmers? It is difficult to calculate, but let's continue the example using the following data. Assume it takes just 2 acres to constitute a CO₂ ton; carbon credits trade at \$40/ton; four gallons of diesel are used per acre at a GHG cost of 50¢ a gallon; and operations are counted twice annually—for planting and then harvesting in 1 year. A farmer would get some credit for each ton of CO₂ equivalent he agrees to sequester. That could mean he would have to put several acres under a GHG contract for each carbon ton for a few years or longer. He will get so many dollars per ton—based on our example of \$40/ton final market price, it would be safe to assume that the farmer would get a lot less than \$40/ ton per year. But we do not know for sure. From the results of the 2008 trading by the Iowa Farm Bureau and North Dakota Farmers Union, it appears farmers received payments in the June/July timeframe of about \$4.50 average per credit.

As to costs, there are several to a farmer. Take just fuel costs, for example. We use our GHG cost of 50¢ per gallon; with an average of 4 gallons used per acre on many farms (The Dept. of Energy's EIA shows this varies tremendously); it takes 2 acres of land to equate to a ton of sequestered carbon ton (USDA data shows this varies a lot); and this is done in two operations, during planting and harvesting. Using these realistic numbers—(50¢/gal) × (4 gal/acre) × (2 acres/GHG ton per operation) × (two operations annually) – the cost per year just for fuel to a farmer is \$8.

But there are more GHG costs per acre. There are the costs of an agronomist to certify CO₂ soil content and a middle-man for aggregating the credits. Then add the GHG costs of the fertilizer plant which had to buy credits and the rural electric co-

operative which had to buy GHG credits for making electricity which they pass along to the refiners, fertilizer producers, and farmers directly. Also, add the GHG costs of seed and crop protection inputs. Given the lag time between the time a farmer might buy a low-value carbon credit and when a refiner, fertilizer plant or electric co-op might buy a higher GHG allowance or carbon offset, the cost to the farmer might exceed the value of his sequestered carbon credit sold over the multi-year time frame of the carbon credit contract.

So in July 2008 when we did our company analysis of GHG costs, companies were paying \$40/ton while farmers were getting \$4.50/ton. Unless there are changes in how the allowance/credit buying and selling occurs it appears that it is far from assured that most farmers will be net winners.

SBR compliance cost. Farmers may not be net winners due to these high GHG costs from refiners. What about the SBRs themselves? Cap-and-trade proposals would have a significant negative impact on SBRs. SBRs would have to come up with the financing to participate in the mandatory allowance auctions and carbon credit trading requirements by the end of each year. Many of the SBRs are not in a financial position to get large enough 'lines of credit' to participate in these auctions/trading without significant help. The costs are too high. For example, the estimated costs of \$683 million in the first year for CHS to comply equal all of our record profits in 1999–2003 combined. CHS would try to recoup those costs by passing them on to the consumer—in our case, mostly farmers and local cooperatives. If we and other SBRs tried to absorb some of the costs, that may put some SBR operations in jeopardy—not unlikely given the extremely slim margins refiners are experiencing today. With rural America depending almost solely on the SBR for fuel any decrease in fuel production or SBR closure would have significant negative impact on agriculture. Clearly help is needed for the SBRs.

Help for small business refiners. Since SBRs must address both smokestack emissions and fuel, we advocate several options: (1) eliminate the requirement that refiners account for the GHG in every fuel gallon each produces; (2) if that is rejected, replace the credit auction system for fuels under cap-and-trade with a 'carbon tax;' (3) provide financial incentives, free allowances and/or other assistance to small business refiners, especially refiner co-ops, to move towards compliance of smokestack emissions; and, (4) permit small business refiners the unlimited use of carbon sequestration credits.

Thank you.

ROBERT J. LOONEY,
Vice President, Government Affairs,
CHS, Inc.

Endnotes

⁽ⁱ⁾ As we are only slightly knowledgeable about the Iowa Farm Bureau (IFB) and North Dakota Farmer's Union (NDFU) programs the below information should be verified with them. But as we understand it, the IFB has developed a relationship with Agragate Climate Credits Corporation and they do all their trading on the Chicago Climate Exchange (CCX). This particular entity, Agragate, holds 20% reserve until the carbon is sold. They pay out twice a year, every 6 months in July and December. The carbon credit is traded daily on the CCX; however their payout is an average of the total sales of their group. Also there is a 10% service fee assessed. The last pay out was done in July 08, that was for carbon that traded from Dec. 07 ranging from \$1.65 to \$7.50 in June 08 for a net average result of \$4.63.

⁽ⁱⁱ⁾ NDFU's Carbon Credit Program. They are the largest ag, soil, biomass, and carbon aggregator; Agragate, associated with IFB, is the second largest out of a total of approximately 57 in the U.S. Contracts run 5 future years, (currently their contracts are for 2009–2013). Each aggregator is required by CCX to hold 20% reserve, so NDFU registers 100% of the credits, but can only trade 80% until the end when verification is complete that all farmers completed their contracts correctly.

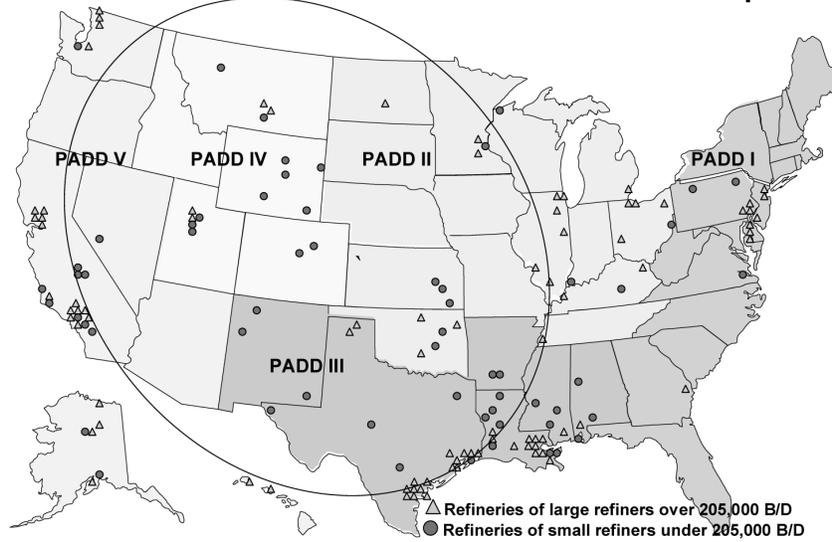
NDFU pays out annually once all credits in their selling pool have been sold. That can easily be a payment that farmers won't receive until well into the summer, so, therefore, they do receive the interest that the profit has made in the meantime as part of their net result after NDFU takes out the verification and registration costs to CCX that they front for all their participants at the beginning of each year. They also have a 10% service fee that is charged. They make no promise of a deadline to their farmers as to when they their payment will come since it is based on the selling of their entire pool. Currently they have about eight that they trade out of right now.

Their payout is an average of the total sales and they don't have a limit on how many people can be in a pool; it is based instead on signing up within the deadline

at the prior to the beginning of each year (Jan. 1). It appears that the 2007 payout was \$3.75. It also appears that the 2008 payout was in mid \$4 range

ATTACHMENT

Location of U.S. Refineries 2007 for Tax Purposes



May 7 2008

The refineries in the oval are mostly small refiners and are the predominate refiners in those states which have significant agricultural presence. Any negative impact from climate change legislation on small refiners to include the three farmer-owned refiner co-ops will have significant consequences to production agriculture and rural communities.

SUBMITTED STATEMENT BY HON. COLLIN C. PETERSON; ON BEHALF OF JAMES S. LOVING, PRESIDENT, NATIONAL COOPERATIVE REFINERY ASSOCIATION

June 10, 2009—by e-mail

Hon. COLLIN C. PETERSON,
Chairman,
Committee on Agriculture,
Washington, D.C.;

Hon. FRANK D. LUCAS,
Ranking Minority Member,
Committee on Agriculture,
Washington, D.C..

RE: Comments on Pending Climate Change Legislation, June 11, 2009 Hearing Before the House Committee on Agriculture

Mr. Chairman and Ranking Member Lucas:

The National Cooperative Refinery Association (NCRA) would like to submit these comments for the record of the June 11 Committee on Agriculture hearing on pending climate change legislation.

In brief, NCRA is deeply concerned that the climate change legislation (H.R. 2454) as reported by the Committee on Energy and Commerce unfairly places the burden of downstream emissions from petroleum products in the cap-and-trade approach. NCRA believes H.R. 2454 would put our farmer-owned cooperative refinery at serious financial risk and jeopardize our refinery's ability to continue its 66 year job of providing the farmer-members and communities in rural America with refined petroleum products. This is an issue with major implications for both NCRA and the cooperatives and farmer-members who have invested in our refinery.

NCRA urges the Committee on Agriculture to work for modifications to the legislation that either eliminate this unfair burden on NCRA and other farmer coopera-

tive refineries or alternatively provide financial assistance or relief, such as an increased allocation of allowances to cope with the major cash flow requirements and major risks and uncertainties.

Impact of Climate Change Legislation on NCRA. The 743 page Committee Print on H.R. 2454 is highly complex. As we understand it, the purpose of the climate change legislation is to reduce emissions of CO₂ and other Greenhouse Gases (GHG) by encouraging conservation and substitution to renewable and other alternative forms of energy. A major component of this policy would be to sharply increase the price of petroleum products and other fossil fuels.

Rather than adopting a straightforward carbon tax as a way of accomplishing this, H.R. 2454 instead uses a cap-and-trade approach on emissions allowances, with the price for auctions of reduced allocations of emissions translating into higher fuel costs. While H.R. 2454 appears to create revenue opportunities for production agriculture through the production marketable carbon credits, it is vitally important to understand that farmers and ranchers and rural communities will also be paying much higher prices for their energy inputs.

The bill's treatment of NCRA and other refineries is addressed in a few short provisions. NCRA and other petroleum refineries are held accountable not only for our own smokestack emissions, but also for all downstream emissions of the refined petroleum products we produce—in our case, the emissions from petroleum products when consumed by our farmer members and in rural communities to power farm equipment, trucks, *etc.* Essentially NCRA and other refineries become carbon tax collectors.

We are talking about a huge change in the way we do business and the pricing of petroleum products. According to a Congressional Budget Office (CBO) analysis of H.R. 2454 dated, June 5, 2009, carbon allowances are predicted to auction at \$16 per ton in 2012 (first year in which refineries would be required to submit allowances), and steadily increase to over \$26 per ton in 2016. It is interesting to note that Environmental Protection Agency models during last year's climate change debate predicted considerably higher prices—more than two-fold. If the system works as intended, the \$16 per ton rate in the CBO analysis translates into \$.16–\$.20 per gallon in increased prices to our farm and rural community customers in 2012, and nearly double that level in 2016. The auction price for carbon credits and resulting downstream product price increases would of course continue to increase beyond 2016 as the number of allowances is ratcheted down.

Based on the CBO analysis, for NCRA to participate in the auction process and buy the allowances we need to continue operating, it means we will need to have to spend \$160–\$180 million in 2012 on allowances, increasing to \$260–\$280 million in 2016. This represents a major increase in cash outlays and is comparable to the net savings to our farmer-members that we project for 2012. Will banks provide us with the additional operating capital? Will we be able to recover the costs through downstream sales? What are the time lags between auctions and product price sales? These and a host of other issues about how the program would operate give NCRA major concerns about our ability to remain in business under this proposal.

If the auction system works as intended, NCRA will pass all of the costs associated with the cap-and-trade system auction through to agriculture and rural America in the form of sharply higher prices for refined petroleum products. That impact on our farmer-members in and of itself is cause for concern. However, if the process doesn't work as intended, NCRA could quickly go out of business, the farmer-members who rely on our refinery the ultimate losers.

NCRA is deeply concerned, as any shortcomings or flaws in the cap-and-trade and auction system will translate into greatly increased transaction costs for NCRA at best and at worst mean that NCRA is unable to recover the costs, which means we would soon be out of business. Based on the experience of a similar approach in Europe, which was buffeted by speculation and other problems, we can reasonably expect volatility and flaws in the implementation of such an approach in the U.S. While major oil companies have the capacity and earnings from other sources to cope with these problems, NCRA, other cooperative refiners and other Small Business Refiners generally do not have other sources of income. We are entirely dependent on our narrow margins in refining crude oil into petroleum products. There is little margin for error.

Requested Remedy. NCRA urges the Committee on Agriculture to work for modifications to the legislation that either eliminate this unfair burden on NCRA and other farmer cooperative refineries, or alternatively provide financial assistance or relief, such as an increased allocation of allowances to cope with the major cash flow requirements and major risks and uncertainties.

While NCRA believes that the credit auction system under cap-and-trade should be replaced with a 'carbon tax' as the more efficient approach given the objectives

of the legislation, if a cap-and-trade approach is the course taken, NCRA urges that the following changes be considered:

- Eliminate the requirement of refiners—or at a minimum SBR's—to be responsible for the GHG emissions in every gallon of refined fuel produced for downstream consumption.
- If the requirement is retained, provide financial incentives and/or assistance to NCRA and other cooperative refiners, as well as other SBR's, many of whom also supply fuel to rural areas. For example, one approach would be to permit NCRA and other small business refiners the unlimited use of carbon sequestration offsets, if a trading system is established that must include small refiners, to meet their compliance goals.
- In H.R. 2454 anyone can buy or sell allowances. To reduce speculation, NCRA recommends that only obligated parties be allowed to participate.

Interest of NCRA as a Farmer-Owned Cooperative. NCRA was established in 1943 and is an energy company that purchases crude oil and makes it into finished fuels for farm equipment, trucks and automobiles. As a fuel producer, NCRA's roots and purpose are to provide fuel for the farms of Mid-America through our member-owners.

NCRA is the largest farmer-owned refinery in the United States and has three farmer member-owners—CHS, Inc., GROWMARK, Inc. and MFA Oil Company—which in turn serve the needs of several hundred thousand farmer member-owners throughout the Midwest, Northwest and Great Plains. CHS, Inc. owns and operates a refinery in Laurel, Montana, and Countrymark Cooperative owns and operates a refinery in Mt. Vernon, Indiana.

Our refinery in McPherson, Kansas has a capacity of 85,000 barrels per day of Crude Oil and 15,000 barrels per day of Natural Gasoline Liquids. Refinery crude runs in Fiscal Year 2008 totaled 29 million barrels. Net sales in 2008 of nearly 31 million barrels of refined petroleum products totaled \$3.6 billion. Sales to member-owners represented 98.0% of our total sales the past 2 years.

Unlike major oil companies, NCRA does not own any crude oil production or downstream marketing capacity as potential sources of revenue. NCRA is entirely dependent on revenues from its refined product sales to operate and invest in the refinery, including any and all costs associated with climate change legislation and regulatory implementation.

NCRA continues to reinvest in our refinery. For example, through an investment of more than \$400 million in our ongoing Clean Fuels project and other environmental upgrades, NCRA now produces ultra-low sulfur diesel fuel and gasoline. NCRA is in the process of investing \$82 million to complete a gasoline benzene reduction project. NCRA's management and Board are evaluating a significant investment in a Heavy Crude Expansion Project. These investments will help produce cleaner fuel and provide significant environmental benefits, both at the refinery and during downstream consumption.

Given that NCRA has limited access to capital, it is important to have climate change provisions affecting our refinery work in a way that will not place our refinery at economic risk and will minimize unnecessary diversion of funds that could be invested in upgrading the refinery, including in technologies and practices that will reduce GHG emissions.

Interest of NCRA's Farmer-Members. The feasibility and costs of implementing the climate change requirements affecting NCRA are important not only to NCRA, but to the several hundred thousand farm families who ultimately own NCRA and depend on us to provide them with refined petroleum products. NCRA and the other two remaining farmer cooperative refiners are unique—what impacts our refinery impacts the farmer-owners of the system. While NCRA and other farmer cooperative refiners represent less than one percent of U.S. refining capacity, together we refine nearly 40 percent of the fuel needs of American farmers, and provide fuel to many rural communities.

Farmers benefit economically through their ownership participation in NCRA and our regional cooperative owners. As a cooperative, savings are passed through the system to our member-owners and ultimately farmer-members. Patronage refunds to NCRA's member cooperatives in 2008 totaled more than \$267 million.

Similarly, the farmers who purchase our fuel, and who are owners in this cooperative system, are directly impacted by the costs of climate change legislation as it affects our refinery. Farmers ultimately bear the costs of regulatory compliance, through a combination of increased costs for their petroleum fuels and/or reduced patronage. Any burdens that threaten the continued economic viability of NCRA could compromise our mission to provide reliable and high quality petroleum prod-

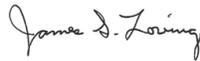
ucts to our farmer-owners that they need in turn to produce food and natural fiber for the nation and the world.

While actions to address climate change may be necessary, it is important to allow NCRA and other regulated entities flexibility and opportunities for cost efficiencies in producing the desired outcomes. Funds committed to regulatory compliance are not available for other purposes, including patronage refunds to farmer members and investments in the refinery for environmental and economic viability purposes.

Thus, NCRA's recommendations to minimize the costs of the climate change cap-and-trade approach on our refinery are motivated by both the direct impact on our business and compliance, the downstream impacts on our farmer-owners and our ability to continue serving their fuel needs.

In closing, NCRA urges the Committee on Agriculture to work for modifications to the legislation that either eliminate this unfair burden on NCRA and other farmer cooperative refineries or alternatively provide financial assistance or relief, such as an increased allocation of allowances to cope with the major cash flow requirements and major risks and uncertainties.

Respectfully Submitted,



JAMES S. LOVING, *President*.

CC: Members, House Committee on Agriculture.

SUBMITTED STATEMENT BY HON. BRAD ELLSWORTH; ON BEHALF OF CHARLIE SMITH, PRESIDENT AND CEO, COUNTRYMARK COOPERATIVE, LLP*

Part I: Carbon Reduction Program Design

(1) Members of Congress have introduced numerous bills to address the wide spectrum of climate change issues. Do you think Congress should enact a program that uses carbon taxes/fees, a cap-and-trade program, or a hybrid of these two approaches? Why?

Please respond in 600 words or less.

CountryMark is a regional farmer owned cooperative and small business refiner. Our 16 member cooperatives serve the agricultural industry in Indiana. CountryMark supplies over 75% of the fuel needed to run Indiana's agricultural industry. We also supply over 50% of the fuel needs for the state's school districts. CountryMark will address the questions from the perspective of a farmer owned cooperative/small business refiner and on behalf of our member farmer cooperatives.

Greenhouse gas (GHG) legislation that would address climate change through mandatory reductions in GHG should have as much flexibility as possible to ensure no harm is done to the United States economy. Increased fuel costs can quickly lead to unrecoverable loss of agricultural business and jobs. CountryMark and the farmers that we serve will play an important role in the development and production of future renewable fuels through the agricultural business we operate. Renewable fuels will be regional in nature with less centralization. We believe our regional agricultural business is well positioned to be a key participant in the future renewable fuels regime. Therefore, it is imperative that any GHG legislation is structured so regional farmer owned refining cooperatives and their members remain economically viable. Otherwise, a key contributor to the present and future renewable fuels industry will be quickly and permanently lost.

Legislation that is formulated as a "one size fits all" program will be too inflexible to recognize key components. Any GHG program should recognize:

- (1) the differences between industrial sectors;
- (2) regional impacts;
- (3) influence of world economic competition;
- (4) the additional burden to the agricultural industry; and
- (5) unique requirements within different industries.

Legislation is being proposed that would address both GHG emissions from facilities and fuels. A cap-and-trade program with baseline reduction targets may be an

*This document is the submission by Countrymark Cooperative, LLP for the Agriculture Committee's climate change questionnaire. However, it was submitted after the printing deadline, and as such does not appear in the *Compilation of Responses to Climate Change Questionnaire* Committee print.

effective method for reducing facility GHG emissions. This type of program should incent individual facilities to improve efficiency, develop new technologies, and foster ingenuity to reduce GHG emissions. However, using a cap-and-trade program to control GHG for fuels presents a great risk to the economy with the greatest risk to the agricultural industry and rural America. For CountryMark fuels the estimated costs for carbon allowances would have a negative impact in excess of \$100 million per year. This adverse effect would take place immediately under current proposed legislation.

Impacts of a cap-and-trade program on *petroleum fuels*, their refiners, and agriculture are unclear. Petroleum fuels especially those that are refined by **farmer owned cooperatives** that serve the **agricultural industry** should be addressed *differently* than a refining industry-wide mandatory requirement to comply with cap-and-trade. Consideration should be given to the *use* of the fuel. When fuels are used primarily for agricultural needs, such activities reduce the overall impact of GHG on the environment.

Since the risks are unsure, some form of **hybrid system should be considered**: cap-and-trade to regulate facility GHG emissions with an alternate method to treat fuel. Fuel could be: (1) totally exempt (2) temporarily exempt or (3) taxed, temporarily or permanently.

The risk to CountryMark's member farmer cooperatives is significant. Under an inflexible, heavy handed cap-and-trade program their conditions would be more 'fragile' with potential fuel disruptions. Adverse effects from such a program could result in unrecoverable losses to our farmer member cooperatives.

Handling fuels separately will provide adequate transitional time to develop the necessary technology to allow industry to provide adequate supplies of renewable fuels. It will also provide time for small farmers which comprise our member cooperatives to retool their equipment to function in the new fuel regime.

(2) Should the agriculture and forestry sectors be covered under a carbon reduction program? Why or why not?

Please respond in 300 words or less.

No. Farms or farmer owned local cooperatives should not be directly covered. Typically, these entities do not have manufacturing and estimating their non-fuel related GHG emissions would be difficult, expensive, and likely inaccurate. Adding the uncertainty of carbon credit values would place additional burden on an industry that has traditionally operated on thin margins and is responsible for feeding the world.

However, agriculture, particularly farming, should have the potential to provide offsets or credits. The crops that farmers' plant should be eligible as offsets for the fuel that was used to power their equipment and transport their crops to market. The majority of CountryMark fuels go into such agricultural uses. When taking into account the *use* of CountryMark fuels, the overall carbon footprint of the entire life cycle is lower than traditional fuels.

(3) If a cap-and-trade program is chosen, how should emission allowances be distributed? For example, should they be at no cost, auctioned, or a combination of both? How should Congress prioritize the distribution of available allowances? Should allowances for the agricultural and forestry sectors be allocated at no cost, if so, should there be a limit on the number of no-cost allowances?

Please respond in 600 words or less.

It is imperative that any allowance distribution system recognize the need to transition from current petroleum based fuels to future renewable fuels without adverse economic impacts on farmer owned small business refiner cooperatives such as CountryMark. As stated above, CountryMark and our member farmer cooperatives will play a key role in moving toward renewable fuels from both a production and distribution standpoint. During this transitional period, no cost allowances should be available to ensure the economic viability of small regional entities.

The agriculture industry includes not only farms but farmer owned energy cooperatives and other agribusiness—all three are intertwined and dependent on each other. An allowance program should recognize this relationship and provide for advanced borrowing of allowances, more no cost allowances, and a reserve of low cost allowances which would complement other flexibility mechanisms such as financial incentives, phase in periods, fuel exemptions, tax rebates, hardship petitions, *etc.* The distribution system of allowances should treat agriculture and those supporting entities uniquely to ensure that this critical industry is not rendered incapable of fulfilling its role in transitioning to alternative fuels.

CountryMark and other small business refiners have a competitive disadvantage in a 100% auction system. Small regional refiners do not have the economies of scale

to compete with large independent refiners or multi-national integrated oil companies. CountryMark's member farmer cooperatives would be significantly impacted with higher fuel costs especially if a 100% auction system was immediately put into place. This added cost may provide the tipping point where regional farmer owned cooperatives such as CountryMark and their members can no longer stay in business. Therefore, even though an auction based distribution system may be the long term goal, there should be enough no cost allowances provided in the transitional period to ensure the economic viability of farmer owned cooperatives, the agriculture industry, and other small business refiners—especially, if these entities will be a major contributor to the renewable fuels regime.

In previous proposed legislation, distribution of allowances was disproportionate between major industries—electricity generation, manufacturing, and transportation including petroleum refining. All of these major industries impact agriculture to some extent. However, transportation fuels are a large portion of costs for CountryMark's member cooperatives. Any allowance distribution system should take this into consideration to ensure that agriculture and farmer owned refining cooperatives that supply them do not pay a disproportionate amount for allowances.

Lastly, if a 100% auction system is eventually implemented in the future, there should be adequate controls to prevent speculation in the market. Speculation can increase the cost of allowances above market fundamentals. This could preclude small business refiners such as CountryMark and small farmers with limited resources the ability to participate in the market. Allowances should only be available to those entities that are obligated to have them.

(4) Should a cap-and-trade program or a carbon tax/fee program be linked to existing or emerging U.S. regional or other carbon reduction programs (*i.e.*, RGGI or individual state programs)? If so, which programs and why?

Please respond in 600 words or less.

Even though the success of the other programs may provide a blue print of how a national program should be structured, a Federal program should supersede state or regional programs. GHG emissions are a global issue, so state lines and regional boundaries should be irrelevant. Including regional or state programs into a Federal program would complicate the system and make compliance management very difficult due to differing rules, goals, *etc.* The program should be Federal with preemption of state or regional regimes.

(5) If a cap-and-trade program is established, should an existing government agency regulate it or should a new agency be created? Please explain.

Please respond in 300 words or less.

There are existing agencies that would be qualified to administer the program. The majority of GHG legislation deals with energy production and consumption. Therefore, DOE (maybe FERC) should be involved. USDA should be the regulator for the carbon reduction program for the agricultural industry and those entities that supply this industry such as CountryMark. USDA should be involved in renewable fuels development and carbon sequestration because these issues can directly affect the agricultural industry.

(6) If a derivatives or futures market in carbon reduction arises in the wake of the creation of a cap-and-trade program, should the Commodity Futures Trading Commission (CFTC) continue its role as the regulator of this derivative carbon market, or should there be a different regulator? Please explain.

Please respond in 300 words or less.

The CFTC should be the regulatory agency. Their experience in dealing with price discovery, transparency and convergence would be critical to the market. Adequate oversight and regulation is needed to ensure that speculation does not inflate the cost of allowances above market fundamentals. Non-market based pricing can preclude small business refiners like CountryMark and their farmer member cooperatives from participating in the market.

(7) Currently, derivatives of energy-based commodities can be traded through: (a) highly structured instruments on regulated, transparent futures markets accessible to anybody and anyone; (b) flexible instruments on lightly regulated, transparent derivative markets accessible to only major market participants, or; (c) flexible instruments on unregulated, opaque over-the-counter markets accessible only to major market participants.

Should derivatives markets in carbon reduction arising in the wake of the creation of a cap-and-trade program also be permitted to develop under similar options as for energy-based commodities?

Please respond in 600 words or less.

Energy-based derivatives are in place and provide one example of how a carbon-based derivative market could function. The ability to trade carbon-based derivatives is one piece of an efficiently operated market. However, adequate oversight and regulation is needed to ensure that speculation does not inflate the cost of the derivatives above market fundamentals. This market should have some limitations on participation to ensure speculation does not occur. High prices could preclude small entities from participating in the market.

(8) Will enactment of a carbon reduction program have negative impacts for regions or populations whose welfare is of special interest to the agriculture community? Such groups could include: residents of rural areas; populations served by USDA nutrition programs; agricultural producers and forest landowners; or input, transportation, and processing sectors of agriculture and forest products. *Please respond in 600 words or less.*

A carbon reduction program will adversely affect the State of Indiana. Electricity costs to all consumers will increase upwards of 40–50% by some estimates since the majority of power generating plants that serve Indiana are coal based. This will also adversely affect coal companies in the region who are primarily based in rural areas.

Higher electricity costs will adversely affect CountryMark, our member farmer cooperatives, and other small business refiners. CountryMark is not large enough (as are other small business refiners) to support co-generation facilities at our refinery. We are dependent on the local utility to supply electricity which is vital in the production of both petroleum based fuels and renewable liquid fuels. Increased power costs will increase operating costs significantly reducing profitability and sustainability of the refinery. Since CountryMark supplies over 75% of Indiana's agricultural market and over 50% of school districts, higher production costs will have a ripple effect throughout the state.

All levels of agriculture will be affected. From the producer that has to utilize energy for home heating, planting, harvesting and handling their output to the processor that transforms the raw commodities to consumer products. Rural communities, which have been in decline for years, will continue to decline if the increased cost to agriculture reduces demand for U.S. commodities. With the globalization of agriculture the U.S. producer's competitive advantage could be compromised.

Indiana's agricultural industry, like other agricultural areas, is dependent on the most vulnerable entities that proposed GHG legislation would regulate. Those entities are regional farmer owned cooperatives/small business refiners, coal-based electricity generators, and fertilizer manufacturers. The GHG costs on those production facilities from both cap-and-trade, carbon taxes or any hybrid program would **significantly raise the input costs to farmers in turn raising food prices**—certainly an unintended consequence.

Agriculture and rural communities run substantially higher risks under GHG legislation if there are not special considerations or assistance. Small business refiners like CountryMark service almost 100% of rural communities and farmer owned refining cooperatives service about 60% of all farms nation-wide. Any GHG program that does not have significant no cost allowances would put farming and rural communities at a disadvantage due to significant cost and fuel supply problems.

Proposed legislation appears to put an added burden to the petroleum industry as a whole. Not only will this industry have to reduce facility GHG emissions similar to other industries, the refining industry has been singled out to have to bear the burden of GHG in its products—the GHG in every gallon of fuel will be counted against refiners. That means that although refiners may eventually be able to reduce facility GHG emissions, they will never be in full compliance until they stop making fuel. Severe reductions in fuel production will send fuel prices soaring—this has been experienced in the upper plains and Midwest in recent years especially during planting and harvest time. It could even force closure of the small business refiners like CountryMark which serve those agricultural and rural areas. Not only will CountryMark's member cooperatives lose their secure fuel supply but also their investment in the cooperative itself.

Care should be taken to ensure that small business refiners that serve agricultural and rural areas remain viable as the fuel industry migrates to renewable fuels. Farmer owned refining cooperatives like CountryMark and the agricultural markets they serve will be key contributors to the future renewable liquid fuels industry. If these regionally based groups are not economically viable due to the proposed GHG program, a vital resource will be lost.

(9) How might revenue generated under a carbon reduction program be best used to offset any negative impacts?

Please respond in 300 words or less.

A significant portion of the revenue should be put toward developing new technologies to mitigate the effects green house gases have on climate change. Renewable liquid fuels technology development and those companies that are involved in their production and distribution should receive incentives.

CountryMark is a regional small business refiner and a farmer owned energy cooperative that serves Indiana. CountryMark processes 100% American crude oil and our refined product is critical to the success of the agricultural industry in Indiana. We are a member of an ad-hoc Small Business Refiners group that represents 35 small refiners in the United States that almost exclusively provide fuels to agricultural and rural areas in the Midwest, Rockies, and Plains states. These regional refiners like CountryMark are important to the economic viability of many areas of the country. These small businesses will be hit the hardest by a carbon reduction program especially if costs are not mitigated in the initial period.

For example, CountryMark has calculated the cost impact for both our facility GHG emissions and those of our fuel. Using the EPA's midpoint cost for GHG emissions of \$40 per metric ton (which was consistent with the European Union carbon exchange at the time), we calculate the carbon cost for our facility and fuels to be in excess of \$140 million in the first year of the program. This amount exceeds the total annual profits of our company for the years 2002–2006 combined.

Unless some mechanism to provide support to CountryMark and other small business refiners is available, many will go out of business. This would adversely affect those sectors that we supply such as the agricultural industry. If this is allowed to happen, many regional refiners and farmers who will contribute to the future renewable liquid fuels regime will be lost.

(10) Should businesses that are affected (either indirectly or directly) by higher overall costs due to a carbon reduction program receive transitional assistance?

Please respond in 300 words or less.

Yes. As stated above, it is imperative that regional small business refiners and farmer owned cooperatives receive transitional assistance. These constituents are vital to the economy, food supply chain, and will be key contributors to the production and distribution of renewable liquid fuels in the future.

One of the biggest fears for farmer owned cooperatives and small business refiners is financing. To be allowed to produce fuel and serve the agricultural industry, allowances or credits must be obtained to cover fuels. As an example, using the EPA's midrange allowance cost of \$40/ton it would cost CountryMark \$128 million in the first year for allowances just for fuel. This is a significant additional operating cost that exceeds CountryMark's current credit facility.

This situation would be similar for many small business refiners and CountryMark's farmer owned cooperative members. Therefore, transitional assistance would be imperative to these small businesses to ensure economic viability of this important part of the energy and agricultural sectors. If CountryMark cannot survive the transition, our farmer member cooperatives will not only lose their secure fuel supply but their significant investment in the company.

(11) What role should public lands play in helping to sequester carbon and/or reduce greenhouse gas emissions?

Please respond in 300 words or less.

No comments.

(12) Should carbon prices be determined exclusively by market forces or should limits on carbon prices be established? Please explain.

Please respond in 600 words or less.

In the long run, market forces should be allowed to set the carbon price. However, it is important that carbon price reflect industry fundamentals and speculation is not allowed to drive the price higher than those fundamentals support.

However, as the industry transitions to future renewable fuels, it is important that there be enough flexibility in the program to ensure that small business refiners such as CountryMark and the agricultural industry remain economically viable. Therefore, some sort of price control or reserve no cost allowances should be established during the transitional period. Small business refiners should also have access to allowances based on financial hardship. In addition, banking and borrowing of credits should be allowed to help alleviate market volatility.

(13) What, if any, lessons can be learned from the European Union's Emission Trading System (ETS) or any other carbon reduction program already underway or being developed? Do any international carbon reduction programs currently exist for agriculture and forestry?

Please respond in 600 words or less.

No comments.

Part II: Carbon Reduction Program Administration and Implementation

The administration and implementation of an offset or allowance program will be a major topic during any potential climate change discussion. Please answer the following questions regarding the scale, scope, and limitations of any program as part of the larger carbon reduction debate.

(14) What options or combination of options would be most effective for agriculture and forestry sectors in a carbon reduction program: a voluntary offset program, bonus allowances for selected agriculture and forestry activities, or agreed upon performance standards for segments of the agriculture and forestry sectors?

Please respond in 600 words or less.

There are many options that can be applied to the agricultural sector to provide offsets for GHG emissions. One option would be to include agricultural activities in an offset program. These offsets should be applied to the fuels and other inputs that are critical to farming activities. When these are included, the life cycle carbon footprint for the fuels that are used in agriculture should be lower than those fuels used for other purposes. Another option would be to allow credit generation for carbon sequestration.

(15) Should the total number of offsets issued annually by the government be limited? If so, how much?

Please respond in 300 words or less.

No, they should not be limited. The true goal of any legislation should be to reduce the net global green house gases. Limiting offsets could stifle engineering and technical ingenuity. Small business refiners like CountryMark supply the agricultural industry and rural communities. Unlimited offsets should be allowed to ensure that these vital areas do not have a disproportionate burden on reducing GHG gases.

(16) How should Congress prioritize the distribution of available offsets (who gets them and how much)?

Please respond in 600 words or less.

In the long run, offsets should be a tradable commodity. However, consideration should be given to those entities that are actively participating in converting to renewable liquid fuels. Small business refiners like CountryMark that supply agriculture and rural areas could be allowed a higher percentage (if they are limited) of offsets or allowances to ensure economic viability. This will prevent adverse hardship to these areas.

(17) What should the criteria be for measuring (quantification, verification, and monitoring) and accounting for the legitimacy of offsets under the program?

Please respond in 600 words or less.

Criteria should be flexible enough to ensure that offsets are quantifiable and can be measured with third party verification. There should be enough flexibility to ensure that agricultural and renewable fuel activities have the potential to generate offsets.

(18) What should be the criteria for assessing offset projects?

Please respond in 300 words or less.

Criteria should be consistent and use the best methodologies of measuring or modeling GHG mitigation. Development of such criteria should be transparent and allow all stakeholders input into its development. Criteria should not be rigidly set or it will stifle ingenuity and preclude some sectors from participation.

(19) How should Congress design a system for verifying offset projects?

Please respond in 300 words or less.

Design of a verification system for offset projects should be transparent and include input from all stakeholders. The system should be consistent across all sectors and verification should be audited to ensure that criteria are met. Private industry should be allowed to train and license verifiers.

(20) Should Congress establish a standards-based approach with pre-calculated values or a project-based approach that measures field results for establishing eligible offsets under the program?
Please respond in 600 words or less.

No comments.

(21) What should be the relationship between offsets and allowances?
Please respond in 600 words or less.

Offsets and allowances should both be included in any GHG reduction approach. They should be equal weight so the overall net GHG reduction goals can be economically achieved. In the long run, both should be fungible commodities for price discovery and market convergence.

(22) Describe the most important factors in establishing the permanence and duration of offsets under the program, including contract length and flexibility?
Please respond in 300 words or less.

No comment.

(23) How should Congress address *existing* offset projects or credits established through a voluntary market or system (*e.g.*, the Chicago Climate Exchange or an emission registry)?
Please respond in 600 words or less.

Existing offset projects or credits should be counted even if completed before the determined baseline period. If offsets or credits are retroactively applied to an entity's baseline emissions, the methodology should be consistent and verified.

(24) The terms "additionality" and "stackability" are often used when discussing the details of an offset program. How should producers and forest landowners who may have been early-actors and already undertaken activities that sequester carbon or reduce greenhouse gas emissions be treated? Should activities undertaken to reduce carbon emissions also be allowed to count towards other environmental market activities, such as water quality or wildlife habitat creation, therefore allowing landowners to "stack" credits?
Please respond in 600 words or less.

As long as the methodology is consistent, early-actors should be recognized for their efforts as long as GHG emission reductions can be verified. Many GHG emission reduction activities will have benefits in other areas and *vice versa*. Therefore, "stacking" credits should be allowed as long as the carbon reduction effect is not double counted.

(25) How should activities that may have been paid for in part by assistance from Federal or state government programs (*i.e.*, cost share, technical assistance) be treated? How should those activities be treated if the practice was not specifically implemented to address carbon sequestration or greenhouse gas emission reduction?
Please respond in 300 words or less.

Programs that were designed for purposes not related to GHG emissions or carbon sequestration should be eligible to earn offset credits. Future programs should also be taken into account even if there is Federal or state government assistance. Small business refiners like CountryMark and the agricultural industry that they serve will need potential assistance in the future to remain viable. These entities that are active in generating offsets or producing and distributing renewable fuels should be able to take credit for these activities due to their "sweat equity" regardless of funding. To reach the aggressive GHG reduction goals laid out in proposed legislation, industry and government will need to work together. Moreover, if the activity reduces carbon, it must be contemplated by any genuine GHG reduction program.

(26) Should a producer be required to return revenue or be held liable if an offset project does not sequester carbon or reduce greenhouse gas emissions? How about in the event of a natural disaster or another event uncontrolled by the producer and/or landowner?
Please respond in 300 words or less.

The methodology (either direct measurement or modeling) for verifying offset projects or GHG reductions should ensure that those activities are real. Natural disasters or other uncontrolled events should not penalize an offset project. There should be some flexibility or time period allowed for reinitiating those projects so they can be permanent.

(27) Should the protocols and procedures for the offset program be detailed in legislation, or should authority be delegated to the appropriate government agency to develop regulations? If so, which agency or agencies should be responsible for devising protocols and procedures?

Please respond in 300 words or less.

Any offset program should be designed with input from all stakeholders and should not preclude any one sector's participation. Current regulatory process provides this approach. Legislation should provide the framework for an offset program and the details should be worked out using current regulatory process. DOE should be involved for those regulations related to the energy sector. DOE is well positioned to ensure that there is a balance between maintaining energy security while reducing GHG emissions. For potential offsets inherent in agriculture the USDA needs to be involved.

(28) What are the obstacles faced by agricultural producers and landowners to implement practices and technologies?

Please respond in 600 words or less.

There needs to be a consistent protocol that ensures that practices and technologies are adequately applied. In addition, a method for generating capital to apply those practices and technologies needs to be available.

(29) Do existing conservation and forestry programs provide sufficient incentives to encourage the adoption and implementation of practices that mitigate climate change impacts, sequester carbon and/or reduce greenhouse gas emissions? If not, what might Congress consider offering as additional financial incentives and technical assistance to speed up adoption/implementation?

Please respond in 300 words or less.

No comments.

Part III: Carbon Reduction Program Additional Thoughts

Please use the next 1,000 words to provide additional comments on subjects which may not be covered by the questionnaire, such as a low-carbon fuel standard, life-cycle analysis, leakage, or biofuel incentives.

1. **Renewable fuels.** Since it is the goal of the Congress to increase the amount of renewable fuels and displace the amount of greenhouse gases and petroleum products, the use of renewable fuel should not be counted in facility emissions. In addition, consideration should be given to exempting GHG emissions from those facilities that produce renewable liquid fuels. Fuels will be considered renewable as measured by their life cycle carbon footprint. Production activities should be part of this life cycle calculation therefore should be exempt from requiring allowances.

2. **Clean Fuels.** The goal of reducing GHG emissions will require migrating to the cleanest fuels available to be used in the production process. One example of a clean fuel is natural gas. Natural gas is the cleanest hydrocarbon based fuel because its combustion emits the least amount of carbon dioxide (CO₂). Consideration should be given to those entities that convert from higher emitting hydrocarbon fuels (such as oil or coal) to natural gas. If natural gas is used as a fuel or in the production process, consideration should be given to exempting the emissions from its use.

3. **Consideration for Fuel Use.** If petroleum based fuels require allowances, consideration should be given for providing no cost allowances for those fuels based on their use. Fuel that is used for agricultural purposes (farming and transportation of grains) should receive no cost allowances because the crops that were planted should provide an offset to its emissions. This would reduce the financial burden to the agricultural industry and those entities that supply them. Consideration should also be given to providing no cost allowances for fuels that are purchased by governmental entities. If the cost of a carbon reduction program is passed on to the fuels that are purchased by government entities, the flow of money will end up being circular in nature.

4. **Low Carbon Fuel Standard (LCFS).** The methodology for LCFS and life-cycle calculations should be consistent and be developed with input from all stakeholders. Life-cycle calculations should consider the use of the fuel. For example, fuel that is used for agricultural purposes (farming and transportation of grains) should have a lower carbon footprint than fuels used for other purposes because the crops that were planted should provide GHG offsets.

5. Refiners Engaged in Renewable Fuel Production. Consideration for additional allowances should be considered for those small business refiners like CountryMark who are actively engaged in the production and/or distribution of renewable liquid fuels. Availability of renewable liquid fuels is very regional in nature. It will take time for small regional refineries to migrate toward producing and distributing additional renewable fuels. The challenge is great due to limited resources; however, it can be accomplished. Implementation of any GHG legislation should protect the economic viability of those entities that migrate toward the production of renewable fuels. If regional small business refiners like CountryMark are not supported during transition, a valuable contributor to the future renewable fuel regime will be lost.

6. Diesel Fuel. Diesel fuel is critical to the agricultural industry. Increasing costs on diesel fuel manufacturing via climate legislation will negatively impact the local family farms that the government is counting on to supply renewable bio-based feed stocks for the renewable fuel industry. Nearly all of the Federal Renewable Fuel Standard is focused on ethanol as a replacement for gasoline. However, the commercial viability of a suitable diesel fuel replacement is years behind the ethanol curve. GHG legislation should promote the development of an economically viable renewable diesel fuel replacement. Special consideration such as no cost allowances or distribution of carbon reduction program revenues should be provided to those companies that develop and implement new technologies for the renewable diesel production.

Respondent did not complete the chart at the end of the questionnaire.

SUBMITTED LETTER BY HON. ROBERT E. LATTA; ON BEHALF OF JOHN C. FISHER,
EXECUTIVE VICE PRESIDENT, OHIO FARM BUREAU FEDERATION



Forging a partnership between farmers and consumers
• Working together for Ohio's farmers •

May 21, 2009

The Honorable John Boehner
U.S. House of Representatives
1011 Longworth House Office Building
Washington, DC 20515-3508

Dear Representative Boehner:

The Ohio Farm Bureau Federation (OFBF) is the largest general farm organization in the state of Ohio with more than 200,000 members representing all of Ohio's 88 counties. Our members produce virtually every kind of agricultural commodity and are the center strength of the Ohio economy. As a result, OFBF is very interested in the nation's climate change policy.

The Ohio Farm Bureau has worked closely over the last several weeks with congressional offices regarding issues that are critically important to Ohio farmers that we believe must be included in any climate change legislation. Despite the good work by members of the Committee, it is clear the recently released compromise bill will impose enormous constraints on the Ohio economy, including agriculture, resulting in a net cost to farmers across our state. Therefore OFBF strongly opposes H.R. 2454.

Even though the compromise does not include agriculture under the cap, in other respects it utterly ignores the principles OFBF has identified as critical to Ohio agriculture. We have consistently advocated that any cap-and-trade bill must:

- Recognize and support the benefits agriculture can provide.
- Must make economic sense for agriculture.
- Provide for a strong leadership role for USDA.
- Base any carbon sequestration program on sound science.

While some sectors of the economy were accommodated in the legislation, the bill does not address the complex needs of Ohio farmers. In fact, due to the broad nature of H.R. 2454 it is almost impossible to measure and evaluate the bill's full impact on Ohio farms. That said, the bill will clearly increase farm operating costs, including fertilizer prices, and reduce our competitiveness abroad by effectively locking the United States into these changes regardless of what is done by other major agricultural competitors, such as China and India.

This bill does not meet the needs and concerns of Ohio agriculture, and we urge all Members on Congress to reject this approach and oppose H.R. 2454.

Sincerely,

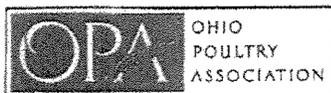


John C. Fisher
Executive Vice President

Cpy: OFBF Board of Trustees, County Farm Bureau Presidents, OFBF Cabinet

280 N. High Street • P.O. Box 182383 • Columbus, Ohio 43218-2383
Phone: 614.249.2400 • Fax: 614.249.2200 • Web site: www.ofbf.org

SUBMITTED LETTER BY HON. ROBERT E. LATTA; ON BEHALF OF JAMES H. CHAKERES,
EXECUTIVE VICE PRESIDENT, OHIO POULTRY ASSOCIATION



5930 Sharon Woods Boulevard
Columbus, OH 43229
Phone (614) 882-6111
Fax (614) 882-9444

May 20, 2009

The Honorable Henry Waxman
Chairman
House Committee on Energy and Commerce
U.S. House of Representatives
2204 Rayburn House Office Building
Washington, DC 20515

Dear Chairman Waxman:

I write to you on behalf of Ohio's egg, turkey and chicken farmers. The Ohio Poultry association represents nearly 100 percent of the commercial egg and poultry production in Ohio.

My members have serious concerns about the speed with which H.R. 2454, the American Clean Energy and Security Act, is moving through the Energy and Commerce Committee. The bill's cap-and-trade provisions related to carbon emissions has the potential to significantly increase energy and transportation costs for poultry and egg producers and processors at a time when they already are suffering through severe economic hardship.

Our organizations cannot support the bill at this time because we believe there has not been a sufficient analysis of the economic impact it would have on poultry and livestock producers.

Sincerely,

James H. Chakeres
Executive Vice President

SUBMITTED LETTER BY HON. ROBERT E. LATTA; ON BEHALF OF MARK WACHTMAN,
PRESIDENT, OHIO WHEAT GROWERS ASSOCIATION



59 Greif Parkway, Suite 101 Delaware, OH 43015 740.202.8088

May 20, 2009

The Honorable Bob Latta
U.S. House of Representatives
1531 Longworth House Office Building
Washington, D.C. 20515

Dear Congressman Latta:

I am writing to you today on behalf of thousands of wheat growers in the state of Ohio regarding H.R. 2454, The American Clean Energy and Security Act.

The Ohio Wheat Growers Association (OWGA) has identified several priorities which we believe are critical elements to the agricultural sector within cap-and-trade legislation. In addition, we have worked closely as an industry to compile and identify key principles that have been embraced by a broad cross-section of the agriculture community.

These principles are meant to present our views in a positive and proactive manner in order to assist the committee as deliberations commence. We believe these principles highlight the potential opportunities for production agriculture in a market based cap-and-trade system. For years, wheat growers along with the rest of the industry, have been proactively engaging in conservation practices, such as no till or reduced tillage, which result in a net benefit of carbon stored in the soil. Therefore, we feel strongly that agriculture is part of the solution, not a part of the problem.

Tremendous environmental benefit can be achieved by allowing producers to provide low-cost, real and verifiable carbon offsets. Any cap-and-trade legislation should fully recognize the wide range of carbon mitigation or sequestration benefits that agriculture can provide. Recognition of this should allow farmers to earn the potential revenue from carbon sequestration trading and thus help offset increased input costs as our nation transitions from a carbon based economy.

Upon review of the legislation, we are frankly very disappointed. We see no specific mention of agriculture offsets in the bill. OWGA has serious concerns that, as written, this legislation will significantly increase the cost of production to family farmers. Without the opportunity to generate revenue from greenhouse gas reductions, growers in Ohio will be unable to bear the burden of increased prices for diesel, fertilizer, steel, electricity and all other inputs necessary to provide feed, fiber and fuel for the world.

Finally, unless the deliberations produce legislation that contains significant and substantive changes incorporating the principles and positions we have advocated for, OWGA will be forced to urge members of the Ohio congressional delegation to oppose passage of this bill.



59 Greif Parkway, Suite 101 Delaware, OH 43015 740.202.8088

In closing, it is our sincere hope the committee will take this opportunity to produce thoughtful legislation which recognizes the important role agriculture has in protecting and restoring our environment.

Thank you for your time and consideration in this matter of mutual interest and we look forward to working with you to address this critical issue.

Sincerely,

Mark Wachtman

Mark Wachtman
President, OWGA

cc: House Committee on Energy & Commerce

SUBMITTED LETTER BY HON. ROBERT E. LATTA; ON BEHALF OF JOHN DAVIS,
PRESIDENT, OHIO CORN GROWERS ASSOCIATION

59 Greif Parkway, Suite 101 Delaware, OH 43015 Tel: 740.201.8088 fax: 740.201.8090

May 20, 2009

The Honorable Bob Latta
U.S. House of Representatives
1531 Longworth House Office Building
Washington, D.C. 20515

Dear Congressman Latta:

I am writing to you today on behalf of more than 20,000 corn growers in the state of Ohio regarding H.R. 2454, The American Clean Energy and Security Act.

The Ohio Corn Growers Association (OCGA) has identified several priorities which we believe are critical elements to the agricultural sector within cap-and-trade legislation. In addition, we have worked closely as an industry to compile and identify key principles that have been embraced by a broad cross-section of the agriculture community.

These principles are meant to present our views in a positive and proactive manner in order to assist the committee as deliberations commence. We believe these principles highlight the potential opportunities for production agriculture in a market based cap-and-trade system. For years, corn growers along with the rest of the industry, have been proactively engaging in conservation practices, such as no till or reduced tillage, which result in a net benefit of carbon stored in the soil. Therefore, we feel strongly that agriculture is part of the solution, not a part of the problem. Tremendous environmental benefit can be achieved by allowing producers to provide low-cost, real and verifiable carbon offsets. Any cap-and-trade legislation should fully recognize the wide range of carbon mitigation or sequestration benefits that agriculture can provide. Recognition of this should allow farmers to earn the potential revenue from carbon sequestration trading and thus help offset increased input costs as our nation transitions from a carbon based economy.

Upon review of the legislation, we are frankly very disappointed. We see no specific mention of agriculture offsets in the bill. OCGA has serious concerns that, as written, this legislation will significantly increase the cost of production to family farmers. Without the opportunity to generate revenue from greenhouse gas reductions, growers in Ohio will be unable to bear the burden of increased prices for diesel, fertilizer, steel, electricity and all other inputs necessary to provide feed, fiber and fuel for the world.

Finally, unless the deliberations produce legislation that contains significant and substantive changes incorporating the principles and positions we have advocated for, OCGA will be forced to urge members of the Ohio congressional delegation to oppose passage of this bill.

In closing, it is our sincere hope the committee will take this opportunity to produce thoughtful legislation which recognizes the important role agriculture has in protecting and restoring our environment.

225



55 Greif Parkway, Suite 101 Delaware, OH 43015 Tel: 740.201.8088 fax: 740.201.8090

Thank you for your time and consideration in this matter of mutual interest and we look forward to working with you to address this critical issue.

Sincerely,

John Davis

John Davis
President, OCGA

cc: House Committee on Energy & Commerce

SUBMITTED STATEMENT BY HON. DAVID P. ROE; ON BEHALF OF W. LACY UPCHURCH,
PRESIDENT, TENNESSEE FARM BUREAU FEDERATION

I am W. Lacy Upchurch, President of the Tennessee Farm Bureau Federation (TFBF) and livestock producer from the Cumberland Plateau area of Tennessee. I gratefully acknowledge the efforts of Chairman Colin Peterson for holding this hearing and allowing comments to be submitted.

Tennessee agriculture's sector generates more than \$2.7 billion. Forestry has added as much as an additional \$500,000,000 in recent years. Forestry and agricultural related industries, value-added manufacturing, marketing and distribution, equine and other related products also add significantly to the state's economy.

Farming continues to dominate Tennessee's landscape with 79,000 farms producing and selling crops, livestock and/or forest products. Although nearly $\frac{3}{4}$ of Tennessee farms had sales of less than \$10,000 during 2007, the state is still a major producer in the U.S. of number of commodities. The state ranks second in equine and meat goat numbers. Livestock production contributes greatly to the rural and farm makeup and dots the landscape which contributes greatly to the character and attractiveness to tourist.

The Tennessee Farm Bureau Federation has concerns of the impacts, both negative and positive, as a result of this proposed legislation. It is apparent that the many agricultural input costs will sustain significant costs increases (*i.e.*, higher fuel, fertilizer and energy costs). Tennessee agriculture is an energy intensive industry that relies to a large extent on international markets.

Tennessee farmers are highly dependent on international trade to provide markets for the commodities we produce. If agriculture is included, measures to level the playing field for international markets should take into consideration agriculture's concerns. The TFBF has concerns that the negative impacts of this legislation will impact certain areas of the country in favor of other areas of the country. Leveling the playing field because of competitive advantages that could be created should be thoroughly be understood.

The TFBF calls to the attention of the Committee to the point that the European Union did not include agriculture in their cap-and-trade legislation. We strongly urge the House Agricultural Committee to study the impacts of including U.S. agriculture and the competitive advantage or disadvantage that would likely be created.

Costs increases incurred by utilities and other providers resulting from climate change/energy legislation will ultimately be borne by consumers, including farmers. Electricity costs are expected to be $\frac{1}{3}$ higher than would otherwise be the case by 2040. EPA's own estimates suggest coal costs could rise by more than 100 percent by 2020. Unlike other manufacturers in the economy, agricultural producers have a limited ability to pass along increased costs of production to consumers. The Tennessee Valley Authority, the main producer of electricity for Tennessee farmers, is heavily oriented to coal electricity plants for production. TVA had no idea that these kinds of costs would be forthcoming when they made the fuel choices for their electrical plants. Yet, under this proposal, Tennessee farmers could be placed at a competitive disadvantage because of the choice of fuel of TVA electrical power. Thus, it is extremely important that those costs shifts be minimized to the greatest extent possible.

Mr. Chairman, the TFBF is concerned about the broad potential adverse impacts of cap-and-trade on agriculture. Even though some say agriculture will benefit, that will depend to a great degree on where the producer is located, what he or she grows, and how his or her business model can take advantage of any provisions of the legislation. Not every dairy farmer (especially our smaller Tennessee dairy farmers) can afford to capture methane—it is a capital intensive endeavor. Not every farmer lives in a region where wind turbines are an option. Not every farmer can take advantage of no-till. Not every farmer has the land to set aside to plant trees.

Yet, every farmer has production costs to meet. Nearly all farmers rely on fertilizer. All farmers drive tractors. We know our costs will rise. And frankly, we are very concerned about the impact of this legislation on our livelihood.

I urge you to thoroughly study the impacts on agriculture and do not be stampered into passing this legislation.

Thank you for the opportunity to express our views.

SUBMITTED LETTER BY HON. JEAN SCHMIDT; ON BEHALF OF KRAIG R. NAASZ,
PRESIDENT AND CEO, AMERICAN FROZEN FOOD INSTITUTE

Hon. COLLIN C. PETERSON,
Chairman,

Hon. FRANK D. LUCAS,
Ranking Minority Member,

Committee on Agriculture,
Washington, D.C.;

Committee on Agriculture,
Washington, D.C..

Re: American Clean Energy and Security Act, H.R. 2454

Dear Chairman Peterson and Ranking Member Lucas:

The American Frozen Food Institute (“AFFI”) is the national trade association that promotes and represents the interests of all segments of the frozen food industry. AFFI represents a large number of small- and medium-sized facilities nationwide that have serious concerns about H.R. 2454, the American Clean Energy and Security Act. We believe that H.R. 2454 imposes potentially significant yet poorly understood costs on the food processing industrial sector as a consequence of having failed to distinguish properly between significant and insignificant sources of greenhouse gas emissions.

In particular, the bill would impose significant direct and indirect costs on the frozen food industry and, consequentially, on the cost of frozen foods. The bill would impose significant direct costs by requiring certain frozen food processing facilities¹ to participate in the cap-and-trade program by purchasing emission allowances from the Environmental Protection Agency or through the secondary market. According to the Congressional Budget Office’s most recent cost estimate, emission allowances purchased at auction would result in a minimum of \$4.45 million (\$2009) per covered facility being deposited from 2011 to 2019 in the U.S. Treasury as a direct tax on food production.²

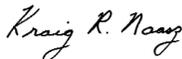
The bill would also impose significant indirect costs by increasing the cost of natural gas and electricity used to operate frozen food facilities, the cost of fuel used to transport raw materials and finished products, and the cost of raw materials. The impact of higher energy prices just last year on food costs is experience enough to warrant a cautious approach to imposing additional energy-related costs on the food production sector. These higher costs will undoubtedly put American businesses at an international competitive disadvantage, and reduce our ability to export.

In light of these impacts, any climate change legislation must carefully distinguish between significant and small sources of greenhouse gas emissions. EPA has estimated that the food processing industry contributes less than 0.2 percent³ to nationwide greenhouse gas emissions, yet the bill imposes significant burdens on this industrial sector. AFFI respectfully urges the Committee to focus the bill’s attention on significant sources of greenhouse gas emissions that may be more efficiently controlled.

Any climate change legislation must also carefully and accurately estimate in advance the economic impact of the legislation on food prices. It is imperative that no climate change law be enacted without understanding the economic impact of the bill on the food processing sector. AFFI respectfully urges the Committee to call for an economic impact analysis of H.R. 2454 on the food processing industrial sector.

In sum, until this legislation focuses properly on significant sources of greenhouse gas emissions, and the Congress fully assesses the economic impacts of the bill on the food processing industrial sector, AFFI cannot support the legislation.

Respectfully submitted,



KRAIG R. NAASZ,
President & CEO,
American Frozen Food Institute.

SUBMITTED LETTER BY HON. JEAN SCHMIDT; ON BEHALF OF ROBERT GARFIELD,
CHAIRMAN, FOOD INDUSTRY ENVIRONMENTAL COUNCIL

June 10, 2009

Hon. COLLIN C. PETERSON,

¹See H.R. 2454, § 312 (definition of “Covered Entities” at proposed 42 U.S.C. § 700(13)(H)).

²CONGRESSIONAL BUDGET OFFICE, COST ESTIMATE: H.R. 2454 AMERICAN CLEAN ENERGY AND SECURITY ACT OF 2009 13 (June 5, 2009) (estimating emission allowance prices of \$15/MTCO₂e to \$26/MTCO₂e in 2011 and 2019, respectively).

³See Technical Support Document for Food Processing Facilities: *Proposed Rule for Mandatory Reporting of Greenhouse Gases 3* (EPA Feb. 4, 2009) and *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2007 ES–6* (EPA 430–R–09–004, Apr. 15, 2009) (reporting total 2007 CO₂e emissions of 7,150.1 MMTCO₂e).

Chairman, House Agriculture Committee,
U.S. House of Representatives,
Washington, D.C.;

Hon. FRANK D. LUCAS,
Ranking Minority Member, House Agriculture Committee,
U.S. House of Representatives
Washington, D.C.

Re: American Clean Energy and Security Act, H.R. 2454

Dear Chairman Peterson and Ranking Member Lucas:

The Food Industry Environmental Council ("FIEC") is a coalition of more than 50 food processors and food trade associations that together represent more than 15,000 facilities across the nation, contribute hundreds of billions of dollars in sales to the economy and employ approximately 1.5 million people. According to the Environmental Protection Agency (EPA), the food processing sector contributes less than 0.2 percent to nationwide greenhouse gas emissions. We believe that H.R. 2454 imposes potentially significant yet poorly understood costs on the food processing industrial sector as a consequence of having failed to distinguish properly between significant and insignificant sources of greenhouse gas emissions.

In particular, the bill would impose significant direct and indirect costs on the food and beverage industry and, consequentially, on the cost of food and beverages. The bill would impose significant direct costs by requiring certain food and beverage processing facilities to participate in the cap-and-trade program by purchasing emission allowances from the EPA or through the secondary market. The bill would also impose significant indirect costs by increasing the cost of natural gas and electricity used to operate food and beverage facilities, the cost of fuel used to transport raw materials and finished products, and the cost of raw materials.

Until this legislation focuses properly on significant sources of greenhouse gas emissions, and the Congress fully assesses the economic impacts of the bill on the food processing industrial sector, FIEC cannot support the legislation.

Respectfully submitted,



ROBERT GARFIELD,
Chairman,
Food Industry Environmental Council.

SUBMITTED LETTER BY HON. GLENN THOMPSON, A REPRESENTATIVE IN CONGRESS
FROM PENNSYLVANIA

**Pennsylvania Public Utility Commission, Commonwealth of Pennsylvania,
Harrisburg, Pennsylvania**

Date: May 7, 2009

To: PA Congressional Delegation

Fr: Vice Chairman Tyrone J. Christy; Commissioner Kim Pizzingrilli; Commissioner Robert F. Powelson

Re: Cap & Trade Legislation Analysis

We have been giving much thought to the President's request to pass meaningful carbon legislation in the 111th Congress. Although it is a noble goal and a major initiative by any standard, we believe it has much deeper significance to our state than many of us realize. Left unexamined and unchecked, this policy will have a profound adverse impact on the Commonwealth of Pennsylvania.

Please allow us to explain.

Pennsylvania is the 4th largest coal producer in the nation, distributing over 75 million tons of coal each year. Roughly 7% of the nation's coal supply is in Pennsylvania, and 58% of all electricity used here comes from coal. However, if the Waxman-Markey bill were to pass, Pennsylvania is looking at a bleak scenario by 2020: a net loss of as many as 66,000 jobs, a sizeable hike in the electric bills of residential customers, an increase in natural gas prices, and significant downward pressure on our gross state product.

We are far from convinced that the negative impacts this legislation could have on our state's economy are fully understood and appreciated. The cost estimates are staggering.

Take, for example, a recent study conducted for PJM—the Regional Transmission Organization (RTO) to which Pennsylvania belongs—that provides an assumed cost of \$60 per short ton of CO₂ emission allowances.¹ By 2013, this would result in an annual PJM-wide market impact of nearly \$36 billion in higher energy prices and rate increases of over \$400 annually for residential ratepayers. Whether we reach the \$60 per short ton figure or not, the impact will likely be a nightmare for regulators.

If we adhere to the energy efficiency provisions of Act 129 of 2008, however, load reduction could reduce annual market costs by billions. According to PJM, a 2% load reduction could cut annual market costs by \$4 billion and reduce CO₂ emissions by 14 million short tons, while a 10% load reduction could reduce such costs by as much as \$18 billion and CO₂ emissions by 60 million short tons.

Additionally, realizing that Pennsylvania already has an 18% Renewable Portfolio Standard (RPS) to reach by 2020 as a result of the Alternative Energy Portfolio Standards (AEPS) Act, we should not discount the impact that increased renewable resources will have on carbon emissions. According to PJM, the addition of 15,000 mw of wind energy could reduce CO₂ emissions by as much as 37 million short tons.

We must also seek to better understand and commit ourselves to new nuclear and waste coal generation, as we believe Pennsylvania has a competitive edge on this front, as well as cost-effective renewables.

Congress has a responsibility to ensure that legislation enacted on this important topic is in the best interests of every state and region in the United States. With that being said, it is clear that Pennsylvania holds a unique position in this debate due to its huge reliance on coal.

Residents of Pennsylvania and other coal-reliant states will be severely and disproportionately harmed by carbon legislation. It will be impossible for these states to rapidly or immediately stop using power generated at existing coal-fired or natural gas-fired power plants without causing severe and protracted reliability problems. Therefore, legislators should recognize the different competitive environments of states and regions across the country and seek to harmonize national-scale carbon legislation with pre-existing state policies and major resources.

In essence, it comes down to “common sense.” Is Pennsylvania ready to acquiesce behind Federal legislation that will choke off our economy by displacing thousands of jobs and increasing utility bills for residential ratepayers? We hope not.

We must take the time to understand the full meaning of cap-and-trade legislation, bearing in mind the effects it will have on the Commonwealth of Pennsylvania.

Sincerely,



TYRONE J. CHRISTY,
Vice Chairman;



KIM PIZZIGRILLI,
Commissioner;



ROBERT F. POWELSON,
Commissioner.

¹“Potential Effects of Proposed Climate Change Policies on PJM’s Energy Market.” http://www.state.nj.us/dep/cleanair/pdf/09_potential_effects.pdf.

Effects of Climate Change Legislation on the U.S. and the World

"A so-called 'cap-and-trade' plan comes with a \$1.9 trillion tax increase over eight years, raising regular Americans' tax bills by \$2,000 a year."

- *American Chronicle*, 4/29/09

The National Association of Manufacturers estimates a loss of 3-4 million jobs as a result of a climate change bill.

- *U.S. News & World Report*, 4/28/09

"Additional costs incurred by steel producers under proposed climate change legislation would limit their global competitiveness and undercut the health and viability of American manufacturing. The result would be the influx of cheaper steel imported from countries without climate change laws, the decline of the steel industry, and the loss of thousands of steelworker jobs."

- *Steel Business Briefing*, 4/29/09

U.S. Representative Glenn "GT" Thompson: "This proposal, if enacted, will kill the very segment of the economy best equipped to get this economy back on track [small businesses and family farms]. And with agriculture being the largest contributor to Pennsylvania's economy, farmers will not only have to shell out additional dollars for fertilizer, fuel, and electricity, they will also suffer a competitive disadvantage when competing in the global economy."

"American Electric Power, a utility giant with 5.2 million customers in states from Texas to Michigan to Virginia, [...] said rate increases [will] stretch from 25% to 50% and beyond, depending on the climate change strategy that finally emerges from Washington."

- *Wall Street Journal*, 4/18/09

"Pennsylvania, like all other states, comes out on the losing side from a Lieberman-Warner type cap-and-tax bill (22,000 jobs lost and \$5 billion in GDP lost). Forcing Pennsylvanians to buy costlier electricity will only make it worse."

- *The Heritage Foundation*, 4/28/09

SUBMITTED LETTER BY AGRICULTURE ENERGY ALLIANCE

June 11, 2009

Hon. NANCY PELOSI,
Speaker of the House,
 United States House of Representatives,
 Washington, D.C.

Dear Madam Speaker:

We are writing you today on behalf of American farmers and producers of farm inputs to express our concern with aspects of the American Clean Energy and Security Act of 2009 (H.R. 2454) approved by the House Energy and Commerce Committee on May 21, 2009. As it is currently formulated, this legislation would burden U.S. farmers with significantly higher production costs. It would also put U.S. producers of key agricultural inputs such as fertilizer and petroleum products at a serious competitive disadvantage and would force even more production of these critical farm inputs overseas to countries with no carbon reduction policies. Contrary to the hopes of many in the agricultural community, the bill does not provide farmers with the ability to recover any of these cost increases through the sale of carbon offset credits. These cost increases will be prohibitive if an international greenhouse gas reduction agreement is signed *after* U.S. production of fertilizer and petroleum products has been forced overseas. We believe that the American Clean Energy and Security Act of 2009 *must* address these concerns.

The agricultural sector is highly energy intensive and relies on natural gas, refined petroleum products and other energy inputs for food processing, irrigation, crop drying, heating farm buildings and homes, crop protection chemicals, and nitrogen fertilizer production. Even though the bill does not include agriculture under the cap, the net result of this legislation would be to increase dramatically farmers' energy costs.

The result of this bill will be to force production of key inputs such as fertilizer and petroleum products to countries that do not regulate carbon emissions. For example, the U.S. fertilizer industry competes in a global marketplace that includes many producers from countries with no carbon reduction policies, like Russian, Chinese and Middle Eastern producers. U.S. fertilizer production also competes with producers in the European Union and Australia whose governments have adopted or drafted policies that aim to fully protect their energy-intensive/trade-intensive industries including fertilizer. U.S. farmers are already dependent on imports for about 55 percent of their nitrogen fertilizer needs. As H.R. 2454 is currently drafted it would place U.S. fertilizer producers at a competitive disadvantage and force them to make a stark choice between losing market share to imports or moving production overseas.

The current version of H.R. 2454 also fails to recognize and support the benefits that agriculture can provide to the reduction of carbon emissions. Agricultural best management practices can play an important role in reducing carbon emissions. In addition, these reductions are low-cost and can be generated rapidly during the early years of a cap-and-trade program when a quick start is most urgent. We feel strongly that any cap-and-trade legislation must recognize and account for the benefits that agriculture can provide and should also allow farmers to earn the potential revenue from carbon sequestration trading to help offset increased input costs.

As currently drafted, H.R. 2454 fails to address the most important concerns of the U.S. agricultural sector. We believe this legislation must directly address increased input costs, the potential to force fertilizer production and petroleum refining overseas, and the tremendous offset capability of American farm production. To be viable, any climate change legislation must recognize the critical role that agriculture can play in protecting and restoring our environment. At the same time, it must not and cannot place the unbearable burden of increased prices for petroleum products, fertilizer, electricity and other agricultural inputs on the backs of American farmers. Particularly in this difficult economic period, we must ensure that our environmental goals are met in a way that does not endanger jobs, investment or food security provided by our agricultural sector. Put another way, this legislation should be supportive of, not in opposition to, our collective mission of feeding America and the world.

Sincerely,

Agribusiness Association of Iowa
 Agricultural Retailers Association
 Agrium Inc.
 American Agri-Women

NCRA
 National Grange
 Nebraska Agri-Business Association
 North Dakota Agricultural Association

<p>American Plant Food Corporation Associated Industries of Florida Brandt Consolidated CF Industries CHS Inc. Chemical Industry Council of Illinois D.B. Western, Inc. Far West Agribusiness Association Florida Chamber of Commerce Florida Farm Bureau Federation Florida Fertilizer & Agrichemical Association Florida Strawberry Growers Association GROWMARK Hardee County Farm Bureau (FL) Hillsborough County Farm Bureau (FL) Illinois Fertilizer & Chemical Association Indiana Grain & Feed Association Indiana Plant Food & Ag Chemicals Association International Raw Materials, Ltd. W.B. Johnston Grain Co. J.R. Simplot Company Kansas Agribusiness Retailers Association Kansas Grain and Feed Association Minnesota Crop Production Retailers Minnesota Agri-Growth Council Missouri Agribusiness Association Montana Agricultural Business Association</p>	<p>Oklahoma Ag Retailers Association Oklahoma Grain & Feed Association Oklahoma Seed Trade Association Peace River Valley Citrus Growers Association Polk County Farm Bureau (FL) PotashCorp Rocky Mountain Agribusiness Association Sarasota County Farm Bureau (FL) Society of American Florists South Carolina Fertilizer & Agrichemicals Association South Dakota Agri-Business Association South Dakota Grain & Feed Association Southern Crop Production Association Terra Industries Inc. Texas Agricultural Cooperative Council Texas Grain & Feed Association The Andersons, Inc. The Fertilizer Institute The McGregor Company Western Plant Health Association (CA)</p>
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SUBMITTED LETTER BY AMERICAN BIRD CONSERVANCY, *ET AL.*

June 10, 2009

Hon. COLLIN C. PETERSON,
Chairman,
 Committee on Agriculture,
 United States House of Representatives;
 Washington, D.C.;

Hon. FRANK D. LUCAS,
Ranking Minority Member,
 Committee on Agriculture,
 United States House of Representatives;
 Washington, D.C.;

Hon. NICK J. RAHALL,
Chairman,
 Committee on Natural Resources,
 United States House of Representatives;
 Washington, D.C.;

Hon. DOC HASTINGS,
Ranking Minority Member,
 Committee on Natural Resources,
 United States House of Representatives;
 Washington, D.C.

Dear Chairman Peterson, Chairman Rahall, Ranking Member Lucas and Ranking Member Hastings:

Climate change threatens the nation's 750 million acres of forests—the same forests that provide clean air and water, carbon sequestration, renewable energy and numerous other ecosystem services at little cost to the public. Changes in precipitation, temperature, fire patterns, increased CO₂ concentrations, pest outbreaks and other influences associated with climate change have the potential to transform forest ecosystems by altering their composition and shifting their distribution.¹ In some cases, forest migration rates may not match the rate at which the climate is changing leaving open the possibility of losing important forest types and forest biodiversity.¹

Impacts associated with climate change also expose forested habitats that are home to countless numbers of birds, amphibians, reptiles and mammals. Temperature increases are expected to shift habitat to higher elevations and to northern climates and—in some cases—may eliminate components of a species' habitat, which can threaten its long-term survival. Warming trends also impact timing of bud burst, insect breeding cycles and peak food demand by migratory birds that depend on forests.

¹Malmsheimer, R.W. et al. 2008. *Potential Effects of Climate Change on Forests*. JOURNAL OF FORESTRY 106(3): 129–131.

Many authorities exist to conduct forest management activities, which can help the nation's non-Federal forests adapt to climate change and continue to provide wildlife habitat and other essential ecosystem services. Conducting adaptation activities will be particularly important in priority areas identified in the State Forest Resource Assessments and Strategies required by the 2008 Farm Bill. Active forest management can help forests adapt through such activities as:

- Replanting and seeding new forests with drought resistant and other trees selected for adaptation resiliency—particularly in areas of high forest fragmentation;
- Conducting fuels treatments in areas experiencing prolonged drought and at risk of catastrophic wildfire;
- Installing measures that facilitate adaptation of wildlife to climate-induced change in forest habitat including establishment of migration corridors;
- Conducting activities that minimize or prevent insect, disease or invasive infestations that are anticipated to accelerate by changes in climate; and
- Employing measures across contiguous forest landscapes that collectively achieve diverse age classes, species mix, stand structure and other characteristics that assist in forest adaptation.

Funding adaptation activities on Federal forests is essential, but only addresses needs on 1/3 of the nation's forests. Adaptation activities will need to be coordinated among Federal, state and private forest ownerships as wildlife adapt to new habitats that span across political boundaries. Funding adaptation activities will help ensure non-Federal forest lands can respond to new climates and continue to provide a broad array of ecosystem services. The undersigned organizations urge Congress to broaden the scope of Section 480 of H.R. 2454 to fund adaptation activities on the nation's 495 million acres of forests held in state and private ownership by including the following (new language in **bold**):

(4) FOREST SERVICE.—*Of the amounts made available each fiscal year to carry out this subpart, five percent shall be available to the Secretary of Agriculture for use in funding natural resource adaptation activities carried out on national forests and national grasslands under the jurisdiction of the Forest Service **and for natural resource adaptation activities on state and private forest lands carried out under the Cooperative Forestry Assistance Act of 1978 and consistent with adaptation activities identified in the State-Wide Assessments and Strategies found in Section 8002 of the Food, Conservation and Energy Act of 2008 or in accordance with other forest adaptation plans developed by the state forester through a public consultation processes.***

We greatly applaud Congress for taking on the immense challenge of addressing climate change and hope you will consider making these changes as the House Agriculture Committee and House Natural Resources Committee address H.R. 2454.

Sincerely,

American Bird Conservancy;
 American Forest & Paper Association;
 American Forest Foundation;
 American Forests;
 Association of Fish and Wildlife Agencies;
 C21, LLC;
 California Forestry Association;
 Council of Western State Foresters;
 Defenders of Wildlife;
 Environmental Defense Fund;
 Forest Guild;
 Hardwood Federation;
 Maine Forest Service;
 Manomet Center for Conservation Sciences;
 National Alliance of Forest Owners;
 National Association of Conservation Districts;
 National Association of Gateway Communities;
 National Association of State Foresters;
 National Association of University Forest Resource Programs;
 National Hardwood Lumber Association;
 National Wildlife Federation;
 National Woodland Owners Association;
 New Forests;

Pinchot Institute for Conservation;
 Plum Creek;
 Society of American Foresters;
 The Nature Conservancy;
 The Trust for Public Land;
 The Wilderness Society;
 Western Pennsylvania Conservancy;
 Weyerhaeuser Company;
 Wildlife Mississippi.

SUBMITTED STATEMENT BY AMERICAN FOREST & PAPER ASSOCIATION

On behalf of the American Forest & Paper Association (AF&PA), I am pleased to submit the following statement regarding H.R. 2454, the American Clean Energy & Security (ACES) Act of 2009. AF&PA is the national trade association of the forest products industry, representing forest landowners, pulp, paper, paperboard, and wood products manufacturers. Our companies are in the business of producing products essential for everyday life from renewable & recyclable resources that sustain the environment.

The forest products industry accounts for approximately six percent of the total U.S. manufacturing output and employs approximately a million people with an estimated annual payroll exceeding \$50 billion. We are leaders in efforts to reduce carbon emissions and to increase the use of renewable energy. Between 2000 and 2006, AF&PA member companies reduced their greenhouse gas emissions intensity by 14 percent. Our recycling efforts help prevent the emission of 21.1 million metric tons of CO₂ from landfills, and managed forests and forest products store enough carbon each year to offset approximately ten percent of U.S. CO₂ emissions.

We are also the leading producer and user of renewable biomass energy. We produce 28.5 million megawatt hours annually, enough to power 2.7 million homes. In fact, the energy we produce from biomass exceeds the total energy produced from solar, wind, and geothermal sources combined. Sixty-five percent of the energy used at AF&PA member paper and wood products facilities is generated from carbon-neutral renewable biomass.

As a leader in sequestration of greenhouse gases and renewable energy use, we are concerned about two key issues in the American Climate and Energy Security Act of 2009 that could have a major impact on our businesses. First, we strongly urge you to adopt a simpler definition of renewable biomass that includes clear sustainability requirements and that explicitly includes residues for wood, pulp, and paper product facilities. Second, we strongly urge you to include well designed domestic forestry projects as eligible offset under the offsets provisions (Title VII, Subpart D).

Definition of Renewable Biomass:

This Committee is well aware of our industry's concerns regarding the definition of renewable biomass. We share the concerns voiced by many Committee Members regarding the overly narrow definition of renewable biomass that was adopted as part of the Renewable Fuel Standard in 2007. We are pleased to see that the Energy & Commerce Committee's bill includes an expanded, but still insufficient and overly complex definition of renewable biomass for the RFS, as well as the for the emissions reduction and renewable energy provisions of ACES.

The definition of renewable biomass in the current version of ACES includes five different categories of woody biomass removed from various types of private lands (including anything removed from within 600 feet of a building, various categories of woods-based biomass from both managed natural forests and actively managed tree plantations, non-plantation forests, and then from yet to be planted forests which were planted for the sole purpose or restoring native forest types), and puts in place unnecessary restrictions on renewable biomass from Federal public lands. The definition also uses new, ambiguous language regarding "residues from and by-products of milled logs," which may or may not result in residues from our facilities meeting the definition.

We believe a preferable approach would be to adopt a simpler definition of renewable biomass, such as the one used in the 2008 Farm Bill, with the addition of reasonable sustainability requirements such as a written harvest or forest management plan developed by a credentialed forestry professional, or adherence to a forest management or wood procurement certification system. A more inclusive definition of renewable biomass would ensure that, in the climate title of ACES, the biomass used in forest products facilities properly would qualify as carbon-neutral biomass and

not require the remittance of allowances. This would accord with the bill's provision of allowances based solely on our mills' fossil fuel usage. It is also consistent with the views of the U.S. EPA, the Canadian Government, the European Union, and the UN Intergovernmental Panel on Climate Change regarding the carbon neutrality of emissions from the combustion of biomass. This would avoid a potential perverse and unintended consequence of creating an incentive for forest products facilities to use fossil fuels *in lieu of* carbon neutral biomass.

Further, it is critical that the final legislation explicitly recognize that residue or byproducts from wood, pulp, or paper product facilities qualify as renewable biomass. Doing so is the only way that the legislation can ensure that our forest, wood, and paper sectors can contribute to our renewable energy portfolio while remaining competitive with other potential sources of renewable energy. If the legislation fails to include this definition, thousands of additional jobs could be lost in our country.

We continue to believe that promoting the development of renewable energy must be accomplished while providing adequate safeguards to ensure that new mandates do not create undue economic or environmental harm. With that in mind, we recommend that the Committee include a comprehensive study of the impact of renewable energy mandates on both economic and environmental factors, with a provision allowing a waiver from all or part of the renewable electricity standard if it is necessary to prevent economic or environmental harm. We have attached specific language which we believe would accomplish these objectives.

We are concerned that the current legislation unnecessarily restricts the use of wood biomass from Federal public lands. As this Committee has heard recently from the Administration, between 60 to 80 million acres of National Forests are densely stocked and at risk of catastrophic fire. The current version of ACES restricts harvesting of renewable biomass from a number of categories of Federal lands, most of which are not open to commercial activities under most circumstances. While we believe these restrictions to be mostly redundant, the provision prohibiting the removal of biomass from "old growth or mature forest stands" is particularly damaging.

This provision basically undercuts the other portions of the definition pertaining to Federal public lands, including the provision allowing fiber to qualify if it is removed "as part of a federally recognized timber sale." Many forest types, including Aspen, Lodgepole Pine, and many mixed hardwood stands in the eastern U.S. are not harvested until the stand has reached biological maturity. The term "old growth" is highly controversial and many forest plans adopt differing definitions, and differing goals regarding the development and retention of old growth. In our view, all byproducts of legitimate hazardous fuels reduction projects or any Forest Service timber sale which complies with the extensive projections required under existing law should qualify as renewable biomass.

Forestry Offsets

The legislation as reported by the Energy & Commerce Committee leaves too many details about acceptable emissions offsets projects up to Federal agencies. AF&PA believes the legislation should list what types of projects qualify as legitimate offsets, and that USDA should play a prominent role in administering this portion of the program.

More than half the forestland in the U.S. is privately owned—roughly 424 million acres. Of that, 354 million acres are actively managed for timber. Private landowners in the U.S. plant about four million trees each day.¹ Domestic forestry projects should be included in legislation as eligible offset project types. These include afforestation, reforestation, and forest management.

We strongly suggest that the development and implementation of domestic forestry project protocols be delegated to the U.S. Department of Agriculture. EPA already relies on the Forest Service to develop the land use and forestry related portions of the National Emissions Inventory reported to the UN Framework Convention on Climate Change (UNFCCC) annually. USDA clearly has the expertise necessary to develop forest related offsets that balance both environmental integrity and administrative burden.

In developing measurement protocols, the USDA should consider voluntary consensus standards developed pursuant to the National Technology Transfer and Advancement Act of 2005, OMB Circular A-119, developed under procedures accredited by the American National Standards Institute.

¹ Forest Resources of the United States, 2007; Draft RPA Review Tables: U.S. Dept. of Agriculture, http://www.fia.fs.fed.us/documents/pdfs/2007_RPA_REVIEW_TABLESv2c.pdf; Tree planting in the United States—1999.

While we agree that additionality and baseline criteria should be determined by forest project type, we are opposed to the use of “business as usual” (BAU) criteria for determining baselines. There are two fundamentally flawed assumptions inherent in a BAU baseline approach. The first is the assumption that BAU actually exists in dynamic markets and the second is the assumption that BAU baseline carbon levels will be maintained in a market system that does not recognize their value. For forestry projects, we support a baseline year approach in which incremental increases in carbon are measured from the carbon inventory level calculated at the start of the project. Carbon stocks in U.S. forests continue to grow at a rate of over 800 million metric tons of CO₂ equivalents per year.² On U.S. timberland which supplies wood to the forest products industry, carbon stocks are stable or increasing.³

Business as usual and additionality criteria, as defined in current legislation, effectively excludes project types that are responsible for the levels of carbon sequestration and storage in forests and products that the U.S. enjoys today, essentially taking it for granted. It is important that policymakers create incentives for maintaining these sequestration levels. It is important that incentives exist to help forestland owners maintain their forests when more lucrative options exist.

Adequate offset credits should be available for purchase in the first year of the program (2012). It is imperative that an initial set of eligible offset projects types be listed in the legislation to ensure that measurement methods and protocols are developed well in advance of implementation of the rule. Furthermore, for certain classes of offset project types that are straightforward in nature, EPA should develop streamlined approval or pre-approval processes to insure the timely availability of offset credits at a large enough scale in order to perform their cost containment function. Significant delays in the availability of offsets will increase costs of the program for regulated entities.

Early Offset Supply

Offset credit should be accepted from voluntary programs in addition to those “established by state or tribal law or regulation”. For example, offset projects registered by the Chicago Climate Exchange undergo rigorous approval processes and third party verification and should be eligible to be part of the early offsets program. Further, the date of eligibility should be the same as the date of the offset project inception (back to January 2001), rather than January 1, 2009.

Environmental Considerations

While forest offset projects can provide valuable co-benefits, these benefits should be encouraged but not required. Offsets should be focused on impacts to atmospheric concentrations of carbon. Environmental co-benefits may be beneficial, but are not necessarily relevant to whether additional carbon is being sequestered. Biodiversity can be measured in many ways across many forest types. Depending on how EPA assesses biodiversity (and native species), these requirements could potentially run counter to the goal of climate mitigation if too narrowly considered. Given that forestry practices are not even listed in the proposal as eligible offset project types, it is premature and inappropriate to single out and dictate environmental considerations for one specific project type. There are no doubt environmental considerations associated with all project types. They are understandable considerations, but should not be required in protocol requirements for offset projects unless they directly impact the enhanced sequestration or emission reduction of carbon dioxide or other greenhouse gases.

Conclusion:

AF&PA appreciates the opportunity to provide input on these key items in the American Clean Energy & Security Act of 2009. We share the Committee’s concerns about the potential impact of this legislation on the competitiveness of American businesses, and hope that the above suggestions can go some distance to ensuring that these concerns are addressed.

For more information please contact:

ELIZABETH VANDERSARL,
Vice President, Government Affairs,
American Forest & Paper Association.

²U.S. Environmental Protection Agency, *Inventory of U.S. greenhouse gas emissions and sinks: 1990–2007*.

³National Council for Air and Stream Improvement, Inc. (NCASI). 2008. Special Report No. 08–05. *The greenhouse gas and carbon profile of the U.S. Forest Products Sector*.

ATTACHMENT A: FARM BILL DEFINITION OF BIOMASS, WITH ADDITIONAL SUSTAINABILITY MEASURES:

(1) BIOMASS.—The term ‘biomass’ means the following types of organic materials:

(A) materials, pre-commercial thinnings, or removed exotic species that—

(i) are byproducts of preventive treatments (such as trees, wood, brush, thinnings, chips, and slash), that are removed—

- (I) to reduce hazardous fuels;
- (II) to reduce or contain disease or insect infestation; or
- (III) to restore ecosystem health;

(ii) would not otherwise be used for higher-value products; and

(iii) are harvested from National Forest System land or public lands (as defined in section 103 of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1702)), in accordance with—

- (I) Federal and State law;
- (II) applicable land management plans; and
- (III) the requirements for old-growth maintenance, restoration, and management direction of paragraphs (2), (3), and (4) of subsection (e) of section 102 of the Healthy Forests Restoration Act of 2003 (16 U.S.C. 6512) and the requirements for large-tree retention of subsection (f) of that section;

(B) any organic matter that is available on a renewable or recurring basis from non-Federal land or land belonging to an Indian or Indian tribe that is held in trust by the United States or subject to a restriction against alienation imposed by the United States, including—

(i) renewable plant material, including

- (I) feed grains;
- (II) other agricultural commodities;
- (III) other plants and trees harvested in accordance with state water quality best management practices and consistent with sustainable management practices; and
- (IV) algae; and

(ii) waste material, including—

- (I) crop residue;
- (II) other vegetative waste material (including wood waste, wood residues);
- (III) animal waste and byproducts (including fats, oils, greases, and manure);
- (IV) construction, demolition, and disaster waste and debris; and
- (V) food waste and yard waste; or

(C) residues or byproducts from wood, pulp or paper products facilities.

Add new definition:

SUSTAINABLE MANAGEMENT PRACTICES: the term sustainable management practices means any of the following:

(I) a written harvest plan, that provides for forest regeneration, developed by a credentialed forestry professional;

(II) a written forest management plan, that is equivalent to a forest stewardship plan (as defined under the Cooperative Forestry Assistance Act of 1978 (16 U.S.C. 2103));

(III) state wood biomass harvesting guidelines that address water, soil, wildlife and other on-site resources, if such guidelines exist;

(IV) a third-party audited forest certification program or similar land management protocol, including a wood fiber procurement system that is third-party certified to a standard specifying responsible procurement practices;

(V) Other programs and services as determined by the state forester that achieve sustainable management of biomass using such regulatory or voluntary policies as may be appropriate; or

(VI) in the case of conservation forest land, additional practices, determined by the state forester, that help maintain or enhance ecological conditions of such forests over time.

CONSERVATION FOREST LAND.—The term ‘conservation forest land’ means a forested ecological community that is not Federal land and is identified by a state forester or equivalent state official through a public process as having unique ecological value.

Add the following provision:

() The provisions of sections (insert relevant sections) shall be administered by the Secretary of Agriculture in partnership with the state forester or equivalent state official in each state.

INTER-AGENCY BIOMASS SUSTAINABILITY STUDY.—

(A) IN GENERAL.—The Secretary of Agriculture, in consultation with the Secretary of the Interior shall conduct a study that assesses the impacts of biomass harvesting for energy production on—

- (i) landscape-level water quality, soil productivity, wildlife habitat, and biodiversity; and
- (ii) conservation forest land.

(B) TIMING.—The Secretary shall—

- (i) complete the study required under this paragraph not later than 5 years after the date of enactment of this subsection; and
- (ii) update the study not later than every 5 years thereafter.

(C) BASIS.—The Secretary shall base the study on the best available data and science.

(D) RECOMMENDATIONS.—The Secretary shall include in the study such recommendations as are appropriate to reduce the impacts described in subparagraph (A).

(E) PUBLIC PARTICIPATION AND AVAILABILITY.—In carrying out this paragraph, the Secretary shall—

- (i) consult with States, Indian tribes, and other interested stakeholders;
- (ii) make available, and seek public comment on, a draft version of the study results; and
- (iii) make the final study results available to the public.

SUBMITTED LETTER BY AMERICAN SUGAR CANE LEAGUE, *ET AL.*

June 11, 2009

Hon. COLLIN C. PETERSON,
Chairman,
Committee on Agriculture,
Washington, D.C.;

Hon. FRANK D. LUCAS,
Ranking Minority Member,
Committee on Agriculture,
Washington, D.C.

Dear Chairman Peterson and Ranking Member Lucas:

Thank you for holding a hearing on climate change legislation as it relates to agriculture. It is vitally important that any climate change legislation passed by Congress takes the future of domestic agriculture production into account. Any domestic regulation that does not equally affect foreign food imports could put U.S. producers at a major disadvantage. We appreciate your strong leadership on behalf of agriculture and your deep understanding of how climate change legislation could adversely affect producers and rural communities. Agricultural producers and private land owners control much of the land in the United States that grows the plants, grasses and trees that sequester carbon. Incentives to keep this land in plant production should be considered.

Sugarcane is a C4 perennial plant capable of sequestering large amounts of carbon each year. Because the cane root systems remain in the ground for years and the growing season is virtually uninterrupted, this photosynthesis/carbon sequestration machine has more in common with timber and other perennials for the purposes of this bill than it does with annual crops such as corn, wheat, beets and beans.

With respect to the sugarcane farming and climate change regulation, close prior consultation with Committee Members and staff will be necessary to achieve a fair result for the industry as a whole. This stems from the unique nature of the sugarcane crop, the large CO₂ sequestration effects achieved when the crop is grown, and the renewable energy source (residual bagasse) used to process the crop into raw sugar.

As a general matter we would recommend that the agricultural aspects of growing the sugarcane crop be separated from industrial side where cane stalks are processed into raw sugar. However, growers of the crop should be free to contract with mills processing the crop to realize any further offsets that should accrue from using renewable energy on the industrial side of the business. In some cases these relationships can be governed by contract, in other cases the relationship will be determined by state laws applicable to the grower/processor relationship.

There is good chance that the bill as drafted would not only squeeze sugar producers up front because of increased input costs but also on the back end because end users could claim that they need to pay less because they will have to offset food processing costs related to the bill. Agricultural producers are price takers not price makers.

Finally, the Department of Agriculture has many people on the ground and the appropriate infrastructure around the country to be the best possible administrator of any agricultural climate change provisions.

Thank you for your consideration.

Sincerely,

American Sugar Cane League;
Florida Sugar Cane League;
Hawaiian Sugar Farmers;
Rio Grande Valley Sugar Growers.

SUBMITTED LETTER BY MINNESOTA FARM BUREAU FEDERATION



June 16, 2009

The Honorable Collin Peterson
1301 Longworth HOB
Washington, D.C. 20515

Chairman Peterson,

On behalf of the 78 regional and county Farm Bureaus throughout Minnesota, we, the Minnesota Farm Bureau Board of Directors, are writing to urge you to oppose the American Clean Energy and Security Act of 2009, H.R. 2454, when it comes before the U.S. House. This comprehensive piece of legislation has broad implications, both negative and positive and social and economic, for all consumers and sectors, including agriculture, and will fundamentally change how America generates and uses its energy.

We acknowledge that the bill reported from the Energy & Commerce Committee is substantially different from the original discussion draft; in some respects, those differences reflect improvements. We sincerely appreciate the efforts that you have made to reach out and seek input from a wide spectrum of agricultural constituencies with the goal of drafting a bill that balances the environmental and economic needs that are at risk. Moreover, we commend you for giving all of agriculture a strong voice on this and other issues affecting farmers and ranchers in Minnesota and around the country.

In a letter sent on May 20, Minnesota Farm Bureau President Kevin Paap noted several key components that our organization believes can and should form the foundation on which to build any legislative effort to control carbon emissions. H.R. 2454, as reported from Committee, at least implicitly acknowledges these components by mitigating cost impacts, promoting use of alternative fuels, and providing for a carbon offset program. However, it unfortunately continues to fall short in many important respects. It is critical to agriculture that the following reforms be included in any carbon emission reduction legislation:

- Assuring that the agricultural sector is not capped.
- Assuring that the United States does not jeopardize its own economy without first getting assurance of comparable commitments from other emitting nations, including China and India.
- Assuring that any legislation effectively "plug the hole" created in America's energy supply, either through nuclear or other forms of energy.
- Assuring that USDA promulgates the rules for and administers a robust agricultural offset program that –
 - fully recognizes the wide range of carbon mitigation or sequestration benefits agriculture can provide;
 - does not cap domestic offset allowances and limits the use of international offsets;
 - bases both carbon emission reduction rates and carbon sequestration rates on sound science;
 - recognizes early adopters; and
 - permits the use of stackable credits.
- Assuring that the provisions of H.R. 2409, the *Renewable Fuel Standard Improvement Act*, introduced by Chairman Peterson, are incorporated in the legislation

Page 1

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Phone: 651.905.2100

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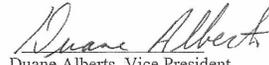
www.fbmn.org

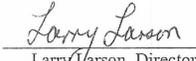


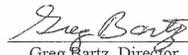
Our organization agrees that any legislation should further the interests of American agriculture, recognize the important role our sector can play in sequestering carbon, and not put American agricultural products at a disadvantage in international markets. But, more important, any legislation considered needs to make economic sense, not just for agriculture but for our economy and our nation as a whole. We don't believe that this bill lives up to those expectations and we ask you to oppose H.R. 2454.

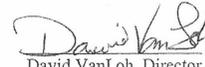
Sincerely,

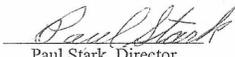

Kevin Paap, President


Duane Alberts, Vice President

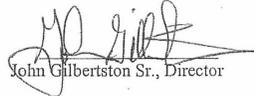

Larry Larson, Director


Greg Bartz, Director

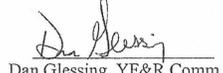

David VanLoh, Director

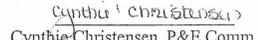

Paul Stark, Director

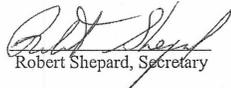

Donavon Strömberg, Director


John Gilbertston Sr., Director


Michael Gunderson, Director


Dan Glessing, YF&R Comm.


Cynthia Christensen, P&E Comm.


Robert Shepard, Secretary


Nancy Petsch, Treasurer

I. Introduction

The National Alliance of Forest Owners (NAFO) is pleased to submit comments to the House Committee on Agriculture as it considers climate change legislation and the role of offsets in climate change policy. NAFO is an organization of private forest owners committed to promoting Federal policies that protect the economic and environmental values of privately-owned forests at the national level. NAFO membership encompasses more than 74 million acres of private forestland in 47 states. NAFO members are well positioned to help our nation in the development of approaches that utilize private working forests, and the products they produce, as a critical tool in fashioning solutions to climate change.

To provide some context, forests in the United States, nearly 60 percent of which are privately owned, sequester almost 200 million metric tons of carbon (CO₂) each year,¹ offsetting about ten percent of annual U.S. emissions from burning fossil fuels.² According to the Environmental Protection Agency (EPA), this amount represents 84 percent of the carbon sequestered by all land uses.³ An appropriately crafted offset system that accounts for the sequestration and storage capabilities of responsibly managed working forests and harvested wood products in an industrial emissions offset marketplace can play a significant role in helping the nation address greenhouse gas (GHG) emissions, and do so in a way that reduces the overall cost of achieving mandatory emissions reduction targets.

In regards to the pending climate change legislation, H.R. 2454, NAFO has four specific, priority recommendations outlined in detail in Section V:

- The U.S. Department of Agriculture should serve the key role with respect to agricultural and forestry offset projects.
- Climate change legislation must identify eligible offset projects at the outset.
- Offset provisions should ensure early offset availability.
- Environmental considerations should focus first on overall reductions of atmospheric carbon and not create unique requirements for specific sectors, like forestry.

I. Responsibly managed private forests play a key role in sequestering carbon.

The basic proposition that responsibly managed forests play a critical role in sequestering carbon is beyond dispute. The EPA, in considering approaches toward addressing climate change, has recognized that responsibly managed forests are considered one of five key “groups of strategies that could substantially reduce emissions between now and 2030.”⁴ Similarly, the Intergovernmental Panel on Climate Change (IPCC) report on mitigation technologies highlights forest management as a primary tool to reduce GHG emissions.⁵ Indeed, the IPCC contends that, “[i]n the long term, a sustainable forest management strategy aimed at maintaining or increasing forest stocks, while producing an annual sustained yield of timber, fibre or energy from the forest, will generate the greatest mitigation benefit.”⁶ The following graphic illustrates this work (the “IPCC Managed Forest Graph”):⁷

¹U.S. Environmental Protection Agency. 2007. *Inventory of U.S. greenhouse gas emissions and sinks: 1990–2005*. EPA 430–R–07–002.

²Birdsey, R., K. Pregitzer, and A. Lucier. 2006. *Forest carbon management in the United States: 1600–2100*. J. ENVIRONMENTAL QUALITY 35: 1461–1469.

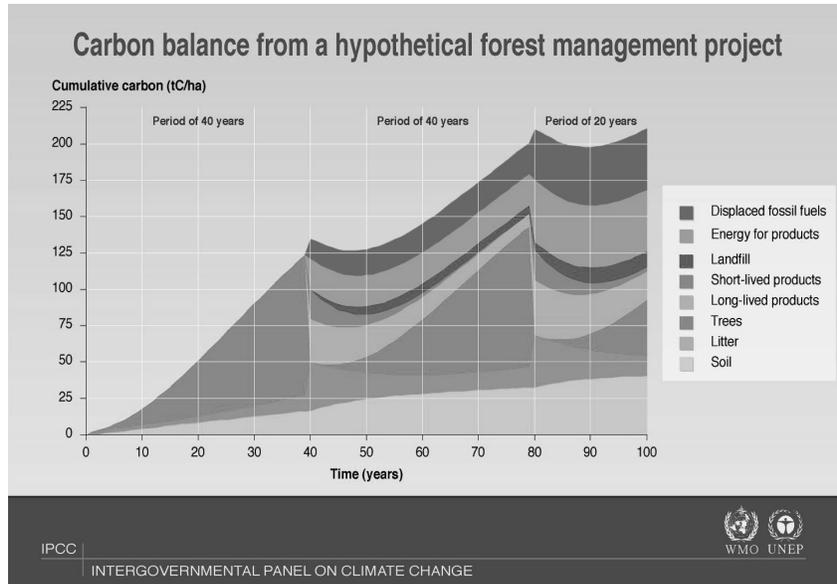
³U.S. Environmental Protection Agency. 2007. *Inventory of U.S. greenhouse gas emissions and sinks: 1990–2005*. EPA 430–R–07–002.

⁴*Regulating Greenhouse Gas Emissions Under the CAA*, 73 FED. REG. 44354, 44405 (July 30, 2008).

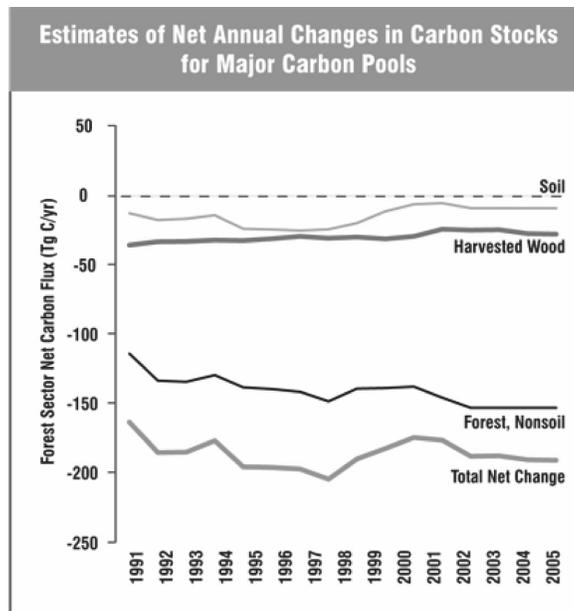
⁵*Id.* at 44405–06.

⁶*Climate Change 2007: Mitigation*. CONTRIBUTION OF WORKING GROUP III TO THE FOURTH ASSESSMENT REPORT OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE [B. Metz, O.R. Davidson, P.R. Bosch, R. Dave, L.A. Meyer (eds.)], Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, page 543.

⁷*Climate Change 2001: Mitigation*. CONTRIBUTION OF WORKING GROUP III TO THE THIRD ASSESSMENT REPORT OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, Technical Summary, Section 4.1, Figure TS–6 (2001).



Private forests in the United States are already a valuable and multifaceted tool in the effort to reduce U.S. greenhouse gas emissions and remove carbon dioxide from the atmosphere. As the following EPA chart demonstrates, managed forests and harvested wood products in the United States provide a significant carbon sink:



EPA Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2006.⁸

⁸Available at USEPA #430-R-08-005, <http://www.epa.gov/climatechange/emissions/usgginventory.html>.

As EPA has explained, “[o]verall, forestry, land use and land-use change activities are considered ‘sinks,’ absorbing carbon dioxide from the atmosphere through a process known as carbon sequestration. In 2006 these activities resulted in removing 883.7 MMTCO₂e (240.8 MMT Carbon) from the atmosphere.”⁹ Despite these impressive figures, as described below there are significant further opportunities for forests to contribute to an offset system through the sequestration and storage of greater amounts of carbon.

II. A successful market based mechanism for controlling GHGs must consider the opportunities provided by responsibly managed forests.

A climate change program focused on reducing GHG emissions through market mechanisms that generate credits should allow offsets from responsibly managed domestic forests and harvested wood products.

Private forests long have been recognized as a source of real, verifiable reductions in GHGs. Most established GHG trading regimes credit forestry activities. For example, trading platforms and registries that recognize forest management include the Chicago Climate Exchange (“CCX”) and the Voluntary Carbon Standard (“VCS”). The Regional Greenhouse Gas Initiative (“RGGI”) and the Western Climate Initiative (“WCI”) both intend to consider forest management offsets in the very near future.¹⁰ NAFO is cautiously encouraged that the California Air Resources Board has initiated work by the Climate Action Reserve (CAR) to revise its forest project protocol to encourage greater participation by managed forest owners. NAFO is also participating with a broad array of U.S. and Canadian stakeholders to develop an international forest project standard for measuring carbon from forest projects that will be compliant with the requirements of the American National Standards Institute (ANSI) and its Canadian counterpart.

Given the scope of emissions reductions that can result from improved forest management in developing countries, it is important that managed forests and harvested wood products play a role in future national and international offset programs. Generating credits from responsibly managed forests and harvested wood products, and allowing the trading of such credits, affords both regulators and industry significantly greater flexibility in determining how to achieve overall net GHG reductions.

For example, while it may not be economically or technologically feasible for a utility to reduce its GHG emissions for several years, acquiring forest offset credits could have the dual benefit of achieving an economically efficient way to both bring the utility into compliance until it can enact its own GHG controls and encourage strong long-term forest management practices that lead to further GHG reductions in the future. In this way, forests provide an extraordinary opportunity for regulators to create a multi-faceted national program that promotes both immediate and sustainable long-term GHG reductions.

Importantly, under appropriately constructed policy, the forest sector could be in a position to immediately participate in an offset program, thus helping ensure the successful start-up of a market oriented mechanism. Promoting policies that encourage regulated entities to work voluntarily with the private forest sector to offset their GHG emissions will enable the nation to attain emission goals in a cost-effective manner and at the earliest opportunity.

NAFO recognizes that no protocol or registry is perfect. However, that should not distract from the role that responsible forest management and harvested wood products can play in reducing GHG levels and the greater flexibility they offer to achieve net GHG reductions in a cost-effective manner. Policies should seek to encourage and credit such benefits when seeking to achieve GHG reductions economy wide.

III. A broad range of forest management activities are available for inclusion in an offset system.

Managed forests in the United States present a clear opportunity to reduce atmospheric CO₂ and mitigate GHG emissions. Available forest management activities that can aid in reducing greenhouse gas emissions include afforestation, reforestation, conservation and production of harvested wood products. Research on private forestlands has also shown that more intensively managed forests and the products

⁹ EPA Technical Support Document for Stationary Sources at 39 (June 2008).

¹⁰ In contrast, the United Nation’s Clean Development Mechanism (“CDM”), does not allow credits for forest management but limits credits to afforestation or reforestation. This approach has produced very few projects in the forestry area due to unnecessary restrictions in the program. By comparison, the Voluntary Carbon Standard, a global consortium dedicated to improving standards and programs for offsets, has proposed potential standards for forestry management.

they produce can sequester and store as much as 150 percent more tons of carbon per acre than less intensively managed forests.¹¹

Products like building materials, furniture and other consumer goods made of wood harvested from working forests also are an important means of storing carbon over long periods. The EPA estimates that the amount of carbon stored annually in forest products in the United States is equivalent to removing more than 100 million tons of CO₂ from the atmosphere every year.¹² Independent studies show that wood products used in building construction store more carbon and use less fossil fuels than other materials, such as steel and concrete. Wood framing in a home produces 26 percent less net CO₂ emissions than steel and 31 percent less than concrete.¹³

IV. A sound offset system that promotes forest markets will enhance the carbon benefits of private forests over time.

NAFO's members represent more than 74 million acres of private forest lands covering every region of the country. These forests are managed according to state-based water quality best management practices, state forestry regulations and standards, third party certification programs and contracts and agreements that ensure long-term forest renewal and strong environmental protection. At the same time, forest owners depend on economically viable product markets to continue making investments in good stewardship and to maintain working forests on the landscape over the long term.

An offset policy that supports existing markets and promotes new and emerging markets for forest carbon will help maintain the forest land base over time, thereby continuing its contributions toward reducing nationwide GHG levels. This includes the development of new sources of domestic renewable energy, such as electricity from forest biomass and cellulosic biofuels that take advantage of the carbon mitigation benefits of forests to help maintain a low carbon economy.

V. NAFO has four specific suggestions to improve H.R. 2454, the American Clean Energy and Security Act of 2009.

Comprehensive climate change legislation should integrate the key role forests and forest products serve in sequestering and storing carbon as necessary to the ultimate success of any national approach toward reducing greenhouse gases. Offsets generated from forest management activities are critical to the successful implementation of a cap-and-trade system, such as the one in H.R. 2454. EPA recently estimated that without an international offsets program that includes forestry, the cost of allowances under the Waxman-Markey discussion draft would increase 96 percent. NAFO maintains that a vigorous domestic offset system incorporating forests and harvested wood products is equally important to achieving the dual goals of reducing greenhouse gases and realizing cost containment for industry and consumers.

NAFO has serious concerns that the implementation of the offset provisions as drafted in H.R. 2454 will not realize the intended goals of encouraging further sequestration of GHGs while achieving cost containment. NAFO makes the following four recommendations regarding H.R. 2454:

- **The U.S. Department of Agriculture should serve the key role with respect to agricultural and forestry offset projects.** The USDA has critical expertise to bring to the development of methodologies and processes for crediting offset projects in the agriculture and forestry sectors. Indeed, Congress already recognized such a role for the USDA in last year's farm bill. Like Section 2709 of the Food, Conservation, and Energy Act of 2008, H.R. 2454 should place primary responsibility on USDA to establish technical guidelines and regulations to assess offsets from forest projects, including approving eligible project types, establishing project protocols, and certifying specific projects.
- **Climate change legislation must identify eligible offset projects at the outset.** The initial years of a cap-and-trade system will be critical to the long term success, and a vigorous and vibrant source of offsets is necessary to implementation during these critical early years. H.R. 2454, however, does not identify any eligible offset projects in the legislation, but defers such determinations

¹¹ *Carbon Sequestration in Californian Forests; Two Case Studies in Managed Watersheds* by Dr. Cajun James, Dr. Bruce Krumland, and Dr. Penelope Jennings Eckert, December 12, 2007. http://www.spi-ind.com/html/forests_research.cfm.

¹² U.S. Environmental Protection Agency. 2007. *Inventory of U.S. greenhouse gas emissions and sinks: 1990-2005*. EPA 430-R-07-002.

¹³ Perez-Garcia et al. *The environmental performance of renewable building materials in the context of residential construction*. WOOD AND FIBER SCIENCE CORRIM SPECIAL ISSUE 37:3-17.

to a complex and lengthy “advisory board” process. Most forest offset project types are well established and should be identified in H.R. 2454 as eligible project types immediately upon enactment. These include forest management that increases carbon stocks, harvested wood products, afforestation and reforestation, and avoided deforestation. These projects should be identified in the legislation.

- **Offset provisions should ensure early offset availability.** To ensure that offsets are available during the outset of the cap-and-trade program, any climate legislation must give offset project developers as much early guidance and certainty as possible so they can attract investment and develop projects in time for the first compliance periods. To ensure a prompt start, H.R. 2454 must streamline procedures for approving projects and certifying offsets. As the bill is currently drafted, numerous layers of rulemakings and agency actions spread over multiple years may bar offsets from coming available for as long as a decade. Congress should direct relevant agencies to begin developing regulatory frameworks immediately, should significantly shorten the deadlines for action for developing such regulations and should streamline various other procedures to make offsets available as soon after enactment as possible. Legislation also should fully encompass offsets generated by well-established programs.
- **Environmental considerations should focus first on overall reductions of atmospheric carbon and not create unique requirements for specific sectors, like forestry.** Section 741 of H.R. 2454 establishes broad and ambiguous environmental compliance requirements for forest offset projects that are unique among all project types. The bill does so while failing to enumerate the specific project types to which such requirement would apply. Such an approach is confusing, unfair and unnecessary. Section 741 should either apply general environmental requirements for all project types, instruct USDA to develop appropriate requirements for offset projects based on project type, or it should be removed altogether. This would remove the disparate treatment of forestry projects through measures that are difficult to administer and, if applied only to forestry, will at once serve as a barrier to participation in an offset program while also jeopardizing the significant benefits forest offset projects can provide to overall greenhouse gas mitigation.

VI. Conclusion

NAFO appreciates this opportunity to provide input on the important opportunities private working forests provide to reduce atmospheric concentrations of GHGs. Working forests work to sequester carbon and are undisputed in serving as a critical carbon sink. In order to be effective, any market based mechanisms for controlling GHGs must incorporate working forests and the broad array of management activities associated with them. This will further enhance the carbon benefits of working forests.

H.R. 2454 must be improved in order to effectively utilize private working forests to reduce GHGs. It should: task the U.S. Department of Agriculture to serve the key role with respect to agricultural and forestry offset projects; identify eligible offset projects at the outset; make offset provisions available early-on; and, ensure that environmental considerations focus first on overall reductions of atmospheric carbon and not create unique requirements for specific sectors, like forestry.

NAFO looks forward to further discussions with this Committee and other policy makers in Congress as climate change legislation is developed and debated.

SUBMITTED STATEMENT BY NATIONAL ASSOCIATION OF REALTORS®

Introduction

On behalf of the 1.2 million members of the National Association of REALTORS® (NAR), who are involved in residential and commercial real estate as brokers, sales people, property managers, appraisers, counselors, and others engaged in all aspects of the real estate industry, thank you for holding this important hearing on the American Clean Energy and Security Act.

NAR policy is committed to efforts to advance consumer understanding of the need for energy efficiency and reduce energy use. For several years, NAR’s membership and the association itself have taken a number of actions to address this commitment, including:

- Building the first LEED Silver-certified office building in Washington, D.C.;
- Developing extensive member training and education programs including a Green certification for real estate professionals;

- Partnering with the U.S. Department of Energy to promote the value of building efficiency to our members and their clients; and
- Sponsoring significant research on building related energy issues.

Given the importance of this issue, we appreciate the opportunity to share the views of the REALTOR® community. NAR urges the Committee to evaluate H.R. 2454's building efficiency provisions and their impact on farm/ranch property values and rural development. Specifically, we oppose section 204 that establishes an energy labeling program and section 201 that establishes national building standards that will supersede state and local codes.

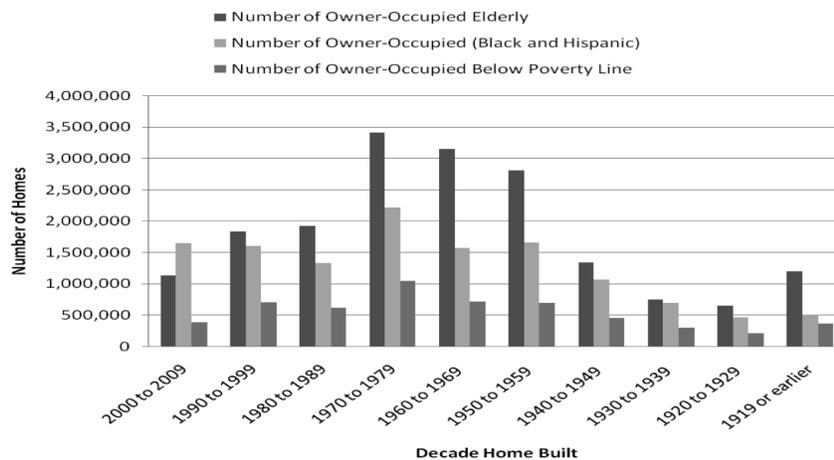
REALTOR® Opposed Building Efficiency Provisions

Real Estate Energy Labels (Section 204)

H.R. 2454 will create a system of energy labels and scores for homes and buildings and suggested triggers for state implementation of a labeling program. Again, NAR's members are committed to advancing consumer understanding of energy efficiency, but these provisions will impose burdens on consumers and an already troubled housing market—without improving the energy efficiency of our nation's building stock in a timely manner.

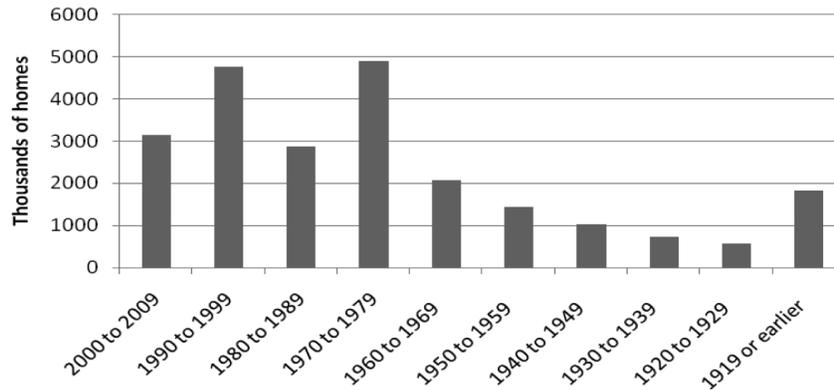
Labeling every home in America will not improve building efficiency. The label will stigmatize older properties and further reduce property values in many areas around the country. At a time when retirement savings and property values have plummeted, many families and commercial property owners do not have the financial resources or equity to make needed energy-related improvements such as replacing aging heating and cooling systems, appliances or windows. Adding to the cost of homeownership and selling a home will complicate the economic concerns that homeowners are already facing.

Of particular concern is the distributional effect of energy labeling on older properties. The first national energy codes were established in 1978, and thus before that, there were no codes to which housing could be built. More than 60% of U.S. home were built prior to 1980, and will face a loss in value due to building labels. These properties will require significantly more improvements than newer properties to raise labeling scores and maintain property values. The following table¹ shows that a disproportionate share of these older properties are owned by those populations—including 73% of the elderly owners and 69% of those living below poverty—that live on a fixed income or farm bill program, and are least able to afford the improvements without significant financial assistance. Also, 64% of Hispanic and black owners reside in pre-1980 homes. We are concerned that the labels will not only stigmatize older homes but also the communities where they are located and which are struggling to maintain and continue to attract investment. Rural communities could be especially hard hit. As second table shows, many rural homes were built prior to 1980.



¹Source: American Housing Survey, 2007.

Rural Owner-Occupied Homes



We are especially concerned with provisions which could encourage state governments to require disclosure of labels at the time of sale. The Energy Committee added a provision that specifies that the actual, physical labeling of a building could not occur after a contract has been executed—but that does not address the issue of a mandated disclosure and comes far too late in the sales process to avoid the disruption of a sale. As a practical matter, states will read this as a requirement to receive Federal funding. Labeling and disclosure will be implemented at the time of sale—one of several optional trigger points in bill.

Our members' experiences with sales transactions indicate that labels will become a bargaining chip at closing to negotiate down selling prices without any assurance that energy-related improvements are made. In addition, with less than a very small percentage of homes changing hands each year even in a robust market, such an approach will prove ineffective at meeting the stated goals of the legislation in a timely manner.

Before prescribing new requirements for branding homes/buildings with labels, consumers require a better understanding of energy efficiency and, just as importantly, must be given the financial resources and incentives to make needed energy improvements. The bill already includes section 202 that achieves those goals, and NAR would support those provisions that will provide the financial incentives needed by consumers to improve homes and buildings and result in significant energy savings in the very near term. But labels will not achieve either goal.

We respectfully urge the Committee to strike this labeling section in favor of retaining retrofit incentive programs in section 202 (discussed below), as the most effective means to improve energy efficiency in America's homes and buildings.

National Building Codes (Section 201)

The International Code Council (ICC) and American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) periodically update model codes and standards for residential and commercial construction, and the vast majority of states have chosen to adopt the later models. The U.S. Department of Energy (DOE) already participates in the process, which is voluntary and consensus driven.

Under the bill, the DOE will establish national building codes that achieve a 30% reduction in energy consumption over current models. In 2016, the energy reduction target increases to 50% and by 2030, 75%. States must adopt the national codes or ones that meet the target or else have their local codes overwritten automatically and lose use of Federal funding from a "cap-and-trade" program. DOE could enforce the code itself, and property owners could be held liable for non-compliance and subject to civil fines. States must show compliance in at least 90 percent of new and substantially renovated building space.

We have several concerns with these provisions:

1. We question the economic achievability of targets to reduce building energy use by 50% or more. Both the ICC and ASHRAE believe that more than 30% reduction within such a short timeframe is not practical—particularly given the diversity of building types covered by the IECC and Standard 90.1.

2. We are deeply troubled by the new DOE code-setting and enforcement authority as it would infringe on state and local jurisdictions and detract from the consensus driven process that has resulted in significant energy savings over the last several years.

3. New construction standards would apply to “substantial renovations”—a term that is not defined in the legislation. Depending on jurisdiction, a building permit may be required for even minor projects. Examples include:

- a. Replacing a garbage disposal (Fairfax County), dishwasher (Charlotte), garage door (Minneapolis), or interior wall covering (Washington, D.C.);
- b. Repairing siding/stucco (San Francisco) or dry rot/termites (Culver City, CA); and
- c. Apply fire-retardant paint (D.C.) or adding a patio trellis (Culver City).

NAR strongly opposes the building codes provisions of H.R. 2454 as currently written, and urges the Committee to join us in our opposition. These provisions should not apply to building renovations. We also encourage reconsideration of the 50% reduction target and new standard setting and enforcement authority for DOE.

REALTOR® Supported Provisions

Regulatory Preemptions (Section 331)

There are also provisions in H.R. 2454 we support. We applaud bill provisions that preempt the EPA regulation of carbon emissions under the Hazardous Air Pollutant, Prevention of Significant Deterioration (PSD) and Title V programs of the Clean Air Act. Without these critical preemptions, EPA must regulate multi-family and commercial buildings exceeding emissions equivalent to a 10 to 20 unit building. The law would prohibit construction or modification of these buildings without first obtaining EPA permits prescribing the best available control technology, which according to EPA, could include solar panels or high efficiency boilers. *Table 1* presents the potential paperwork impacts of PSD and Title V permits based on EPA data which are considerable. *We strongly support the regulatory preemptions, and urge the Committee to do the same.*

PERMIT	COMMERCIAL BUILDINGS	TOTAL COST (\$Thousands)	HOURS
Construction (PSD)	24,200	2,000,000	21,000,000
Operating (Title V)	85,100	3,900,000	28,900,000
Source: EPA estimates.			

Retrofit Incentives Program (Section 202)

This section provides state funding to incentivize home and building energy efficiency improvements. Provisions of this section are virtually identical to H.R. 1778 (the Retrofit for Energy and Environmental Performance Program Act) sponsored by Rep. Welch (D-VT) which NAR supports. We believe that providing families and building owners with financial incentives that they need to retrofit their homes and buildings is critical if substantial energy savings are to be achieved in the near term. *We urge the Committee to support this in lieu of the section 204 energy labeling provisions (discussed above).*

Conclusion

Thank you for the opportunity to share the views of our REALTOR® members on H.R. 2454. We appreciate the Committee’s efforts to examine and improve legislation which encourages and promotes energy efficiency in our nation’s homes and buildings. We look forward to working with the Committee on this important piece of legislation.

SUBMITTED STATEMENT BY NATIONAL CATTLEMEN'S BEEF ASSOCIATION

The National Cattlemen's Beef Association ("NCBA") is the national trade association representing U.S. cattle producers with nearly 32,000 individual members and sixty-four state affiliate, breed and industry organization members. Together NCBA represents more than 230,000 cattle breeders, producers and feeders, and is the marketing organization for the largest segment of the nation's food and fiber industry.

NCBA members are responsible environmental stewards who love and respect the land, air and water that are fundamental to sustaining our way of life. We recognize an environmental stewardship code and have adopted policy that states that the Association "shall not be compelled to defend anyone in the beef cattle industry who has clearly acted to abuse grazing, water, or air resources." 2005 Policy, National Cattlemen's Beef Association, Property Rights and Environmental Management Policy 1.1. In addition, we comply with stringent regulations under the Clean Water Act, Clean Air Act, Emergency Planning and Community Right-to-Know Act, and others designed to ensure environmental protection. Cattle producers will continue to work every day to protect and improve the environment so that they and future generations will be able to continue to live off the land.

The Agriculture Sector of the Economy is a Minor Source of Greenhouse Gas Emissions and Should Be Exempt From Regulation. Unfortunately, while the Waxman-Markey discussion draft included language specifically stating that agriculture is not a capped sector, the Chairman's mark deleted this language. Therefore, there are no assurances that agriculture will not be regulated under the bill. The exemption language should be added back in to the bill.

An exemption makes sense for a number of reasons including the fact that agriculture is a minor source of greenhouse gas emissions. According to the U.S. Environmental Protection Agency, in 2007 the entire agriculture industry emitted only 5.77% of all greenhouse gas (GHG) emissions in the United States, and manure management activities from all livestock operations represent less than one percent (specifically .82%) of all U.S. GHG emissions. Compare these emissions with emissions from fuel combustion which accounted for 94% of all CO₂ emissions in the same year.

In the agriculture sector, enteric fermentation is the largest source of methane emissions in the U.S., followed by manure management in anaerobic digesters. In 2007, methane emissions from enteric fermentation were only 2.3 percent of total U.S. GHGs and methane from manure was only .7 percent. The largest factors affecting methane emissions from ruminant animals are the type of diet and digestive efficiency of the animals. Studies show that a grain based diet produces less methane than a forage-based diet. According to a 2006 Pew Center on Climate Change report entitled "Agriculture's Role in Greenhouse Gas Mitigation," "for most confined livestock, feed quality and digestibility are already at a relatively high level, and further improvements from conventional changes in feed rations are likely to be modest."

Nitrous oxide is produced by biological processes that occur in soil, water, fertilization, land application of livestock manure, retention of crop residues, irrigation, tillage practices, *etc.* According to the EPA, nitrous oxide emissions from agriculture soil management on croplands and grasslands accounted for 3.4 percent of total GHG emissions in the U.S. in 2007. Nitrous oxide emissions that resulted from manure management accounted for only .2 percent. According to the Pew Center's report cited above, "opportunities for mitigating N₂O emissions from stockpiled or composted manure are relatively limited."

In addition, the EPA has identified GHG benefits associated with the use of manure as agricultural nutrients. In 2008, The EPA released the "National Water Program Strategy: Response to Climate Change." In Chapter III, entitled National Water Program: Climate Change Response Actions, EPA describes the contribution agriculture makes to nitrous oxide emissions and states "Agriculture producers have the potential to reduce nitrous oxide releases by expanding the use of manure, biosolids or other organic residuals." The availability of manure is only possible because of the existence of animal feeding operations which generate manure.

Similarly, according to the U.S. EPA's annual "Emissions and Sinks" report, in 2006, land use, land use change, and forestry activities resulted in the significant benefit of a net carbon sequestration offset of approximately 14.8% of total U.S. CO₂ emissions, or 12.5% of total U.S. GHG emissions. The EPA attributes mineral soil carbon sequestration "to the conversion of cropland to permanent pastures and hay production, a reduction in summer fallow areas in semi-arid areas, an increase in the adoption of conservation tillage practices, and an increase in the amount of organic fertilizers (*i.e.*, manure and sewage sludge) applied to agricultural lands.

Again, the application of manure as an organic fertilizer is only possible because of the existence of animal feeding operations which generate manure.”

The Process Must be Slowed Down so that the Bill's Effects on the Price of Energy and other Costs of doing Business can be Fully Studied and Understood. NCBA does not believe there has been adequate time to sift through the voluminous bill and understand all the effects it could have on the cattle industry. When Congress considers a bill of this magnitude and economic importance, we believe careful analysis and deliberation are essential. Our members are very concerned, for example, about the effects H.R. 2454 could have on the costs of fuel, electricity, feed, fertilizer, equipment, and other inputs necessary to maintain a cattle operation. Economists have estimated that H.R. 2454 would cause farm income to drop anywhere from \$6 billion in the short term to \$50 billion long term. The cattle industry has suffered significant economic setbacks lately and, if these estimates are anywhere close to being accurate, this bill would very likely push many operations over the edge.

Offsets Provisions Must be Strengthened. The agriculture sector has been told all along that agriculture's ability to generate offsets to sell to the regulated industries will help all sectors of the economy mitigate increased costs associated with the bill. Unfortunately, the Waxman-Markey bill does little to assure us that agriculture offsets will be made available for this purpose.

The agriculture sector drafted key principles that we believe are important in any cap-and-trade bill, and gave them to Chairman Waxman for consideration. Those principles include:

- The agriculture sector must not be subject to an emission cap.
- Any cap-and-trade program must fully recognize the wide range of carbon mitigation or sequestration benefits that agriculture can provide.
- Any cap-and-trade legislation must make economic sense for agriculture.
- The USDA should promulgate the rules and administer an agricultural offset program.
- The use of domestic offsets must not be artificially limited.
- Establish carbon sequestration and greenhouse gas mitigation rates based on science.
- Any cap-and-trade program must provide an initial list of project types that are eligible agricultural offsets.
- Early actors must be recognized so that producers who have done good things in the past for the environment will not be penalized by not being able to participate in offset creation.

Unfortunately, these principles were not included in the Waxman-Markey bill: Agriculture offsets were not fully recognized in the bill; the legislation does not appear to make economic sense for agriculture; the USDA was not given authority over ag offsets; the level of offsets were limited under the bill; there was no list of, *per se*, eligible offset project types in the bill; and, early actors were not recognized.

It is for these reasons that NCBA remains concerned about this bill, and is hopeful that they will be addressed in any compromise package.

SUBMITTED STATEMENT BY NATIONAL COUNCIL OF FARMER COOPERATIVES

Mr. Chairman and Members of the Committee, on behalf of the more than two million farmers and ranchers who belong to one or more farmer cooperative(s), the National Council of Farmer Cooperatives (NCFC) applauds your efforts to examine both the positive and negative impacts that the American Clean Energy and Security Act (H.R. 2454) may have on farms, small businesses, farmer cooperatives and families across rural America.

Since 1929, NCFC has been the voice of America's farmer cooperatives. Our members are regional and national farmer cooperatives, which are in turn composed of nearly 3,000 local farmer cooperatives across the country. NCFC members also include 26 state and regional councils of cooperatives. NCFC is unique in Washington as the only national organization devoted solely to promoting, protecting and advancing the interests of farmer cooperatives and their owner-members.

NCFC values farmer ownership and control in the production and distribution chain; the economic viability of farmers and the businesses they own; stewardship of natural resources; and vibrant rural communities. We have an extremely diverse membership, which we view as one of our sources of strength—our members span the country, supply nearly any agricultural input imaginable, provide credit and re-

lated financial services (including export financing), and market a wide range of commodities and value added products. Earnings from these activities are returned to their farmer members on a patronage basis, helping to improve their income from the marketplace. These earnings are then recycled through rural communities as farmers and ranchers purchase goods and services from local businesses, thereby sustaining rural America.

We appreciate the Committees' attention to this incredibly important issue and urge the Committee to continue to push for agriculture's interest as this debate moves forward. Agriculture needs to be a more active participant in this process so that the end result is legislation that makes economic sense for all of agriculture.

All sectors of the agricultural economy, but especially producers, must be involved in this process to ensure that any incentives are aligned with the economic interests of farmers and ranchers. Scientists and policy makers are viewing issues from the strategic, 30,000 foot view. Involvement by producers and producer organizations can guide the process to develop a system that can be implemented on the farm level, and can answer basic questions that a producer might have, such as, "What happens to a carbon credit when I sell my land?"

In addition, involvement will be important to ensure that any costs associated with increased carbon reduction are offset by benefits in the marketplace. We have to take a real look at the additional costs that the legislation could impose on farm and household budgets across rural America. Most importantly, any legislation has to work for both individual producers and the cooperatives that they own.

NCFC's membership is as broad and diverse, geographically and by commodity, as any agricultural trade association; the difficulty in reconciling the basic structure of what a cap-and-trade program would look like, even within our membership, reflects the enormity of trying to find a system that will work for American agriculture as a whole.

For example, there are several farmer-owned cooperatives that refine petroleum. These cooperatives service 60 percent of the producers in the U.S. with petroleum products. Any approach to reducing greenhouse gas emissions must prevent significant problems to the rural based small business refiners fueling rural communities and agriculture. To avoid potential harm to small refiners, a straight cap-and-trade approach may not work best and our members are exploring their options in this regard.

Our membership also includes a number of cooperatives that market various specialty crops, both fresh and processed. To date, there is very little data on the potential gains or impacts this diverse industry may face. Production of many specialty crops is resource intensive involving considerable investment in inputs. It is unclear if, or how, specialty crop producers will benefit from an agricultural offsets program. We recommend that any revenues generated by allowances allocated to U.S. Department of Agriculture (USDA) would be for transitional assistance to those operations not able to benefit from cap-and-trade for whatever reason, and are therefore bearing only the costs of GHG reduction in the U.S. Such funds could also be used for research and development of further low cost GHG reducing or mitigating practices in agriculture.

At the same time, dairy cooperatives are examining the potential benefits their farmer owners might access under a straight cap-and-trade system. These are just two examples that demonstrate the complexity of this issue, highlighting the fact that a one-sized-fits-all approach poses difficulties just within the agricultural sector.

Most importantly, the agricultural sector must not be subject to an emissions cap should legislation aimed at curbing U.S. greenhouse gas (GHG) emissions be enacted. U.S. agriculture's GHG emissions from 1990 to 2005 have remained nearly constant, increasing by less than 0.5 percent since 1990, with both year-to-year increases and decreases occurring in that period. Over this same period, U.S. fruit and vegetable production has increased by nine percent, feed grains and oilseeds by 35 percent, red meat and poultry production has increased 40 percent, milk production has increased 20 percent, and egg production has increased about 33 percent, according to figures provided by the USDA. U.S. agriculture accounts for about 6.5 percent of all U.S. GHG emissions, according to the latest inventory published by U.S. Environmental Protection Agency (EPA). EPA also reports that agriculture can account for about 20 percent of the emission reductions or sequestration that occurs. It is far more sensible to allow agriculture to participate in the cap-and-trade program's voluntary offsets credit market.

Farming Carbon

When you think about agriculture at its most elemental level, taking carbon dioxide from the air and turning it into food, fiber, feed and fuel is what every farmer

in this country actually does—for example, we produce corn, cotton, rice, soybeans, or wheat; and raise hogs or dairy cows.

Yet, with a growing interest in reducing climate changing carbon emissions, agricultural producers sit in a unique position to become active participants and beneficiaries in any future marketplace for carbon.

Our membership believes Congress must provide sufficient tools for capped emitters to control the costs to society; this includes issuing of free allowances to capped emitters, availability of international offsets, and most importantly to agriculture a robust, unlimited, domestic agricultural offset program.

An agricultural offsets program, with market-driven benefits that explicitly and directly reward innovation, would offer the best set of incentives for farmers. U.S. farms and ranches managed by crop, livestock and poultry producers can provide low-cost, real and verifiable carbon “offsets” that:

- Greatly lower the costs to society of a cap-and-trade system while achieving real greenhouse gas emission reductions;
- Provide the offsets needed to allow changes in energy production technologies and investments in capitol and infrastructure to occur, while providing market liquidity and low-cost emissions reductions to help the market function properly; and
- Provide additional environmental benefits in the form of cleaner water, air and better wildlife habitat, while enhancing the fertility and productivity of the soil resource needed to provide food, feed, fuel and fiber.

Both the regulated community and agricultural sector need assurances that agricultural offsets will be available to lower costs of a climate change program. The regulated community needs to know that a sufficient quantity of offsets will be available for purchase so that they can comply with a mandatory cap. Therefore, we believe that the use of domestic offset allowances must not be artificially limited. It is unwise and market distorting to place an artificial cap on the amount of domestic offset allowances a covered entity can use to meet its yearly obligations. Our goal should be to remove as much GHG from the atmosphere as possible. Artificial caps will prevent legitimate carbon sequestration, livestock methane capture, and manure gasification projects from occurring.

Additionally, the agricultural sector needs to know which project types Congress considers to be eligible as agricultural offsets in order to assess the full impact of cap-and-trade legislation on agriculture. Recognition and inclusion of the wide range of carbon mitigation or sequestration benefits that agriculture can provide is needed (ex: sequestration of carbon on agriculture lands, and reduction of emissions from livestock through dietary improvements and manure management).

We also strongly contend that USDA must promulgate the rules and administer the agricultural offset program. USDA has the statutory authority provided in the 2008 Farm Bill, the institutional resources and the technical expertise necessary to create and administer an agricultural offset program that works for production agriculture. USDA has a track record of working with farmers as well as studying, modeling and measuring conservation and production practices that sequester carbon and that promote appropriate manure management and nutrient application on agricultural lands. USDA should be given adequate flexibility in implementing the offset program that allows them to account for new technologies and practices that emerge, which result in emission reductions from agricultural sources.

Agriculture is always evolving. As technologies and practices improve, farmers are converting to alternative tillage practices such as no-till or ridge-till. They are reducing fertilizer application rates and enhancing crop uptake of fertilizer nutrients. Some livestock producers are able to use methane digesters and invest in covers for manure storage or treatment facilities while others are able to reduce enteric emissions with dietary modifications. Producers that have taken these steps should not be disadvantaged by being excluded from compensation for future offsets that occur as a result of these ongoing efforts.

Similarly, existing offset commitments in pre-existing voluntary markets must be eligible for participation in the new cap-and-trade program, but to do so they must:

- Be able to meet the new standards and contractual obligations;
- Require ongoing actions by the offset seller to ensure that offsets will continue to occur; and
- Only be paid for the future offsets that occur as a result of these ongoing actions, and not for offsets that occurred in the past.

Many practices undertaken to reduce greenhouse gas emissions will provide additional public benefits, such as clean water, wildlife habitat, and reduced soil erosion.

Projects participating in a greenhouse gas offset market should not be excluded from also participating in other markets for environmental services that currently exist or may arise in the future. Allowing producers to “stack” credits will maximize the economic viability of carbon sequestration and manure management projects, ensuring more projects are undertaken and synergies with other environmental priorities are developed. In addition, new climate programs should complement existing conservation programs within the farm bill.

Finally, in terms of verifying that agricultural offsets are in fact being achieved, we believe farmer-owned cooperatives are uniquely positioned to serve as part of the pool of third party verifiers under a sample-based review system.

Unfortunately, the legislation in question is either silent or falls considerable short on many of these fundamental issues.

Production Costs & Global Competitiveness

No one should underestimate the sacrifices that will be called for from citizens and business across multiple sectors and regions of the U.S. economy, including the nation’s rural areas, to achieve the real, meaningful GHG reductions called for by the President and certain leaders in Congress. Prices of electricity and petroleum products and other related key determinants of business and household expenses will go up, and for some more than others.

Electricity and other energy costs will go up under any cap-and-trade bill that sets allowances significantly lower than baseline levels, but the increases will be far more dramatic if those allowances are auctioned to emitters. Auctioning all carbon allowances at \$20 per ton (as was assumed by OMB in the President’s 2010 budget request), would increase electricity costs approximately 40 percent in Indiana, 30 percent in Kentucky, 20–25 percent in Ohio and 15 percent in the Carolinas, according to recent studies. Producers and their cooperatives have far less opportunity than others in agriculture to recoup such increases in production costs through the sale of GHG offsets and would be disproportionately disadvantaged by allowances being auctioned off. For example, production costs would go up, and eventually such cost increases will lead to supply effects that will result in comparable retail price increases and potential loss of market competition, globally. Given that U.S. agriculture relies on foreign markets to purchase about 1/3 of our production, the ramifications are staggering.

A cap-and-trade system will have winners and losers, in agriculture as in other areas of the economy. The ability to generate offsets and earn credits notwithstanding, farmer cooperatives and their member-owners are very concerned about the potential that a carbon reduction program will result in higher energy costs and higher costs for construction materials and other inputs. For example, either a cap-and-trade system or a carbon tax likely would result in higher electrical costs for farmers served by rural electric cooperatives (which as a group generally are more dependent on coal). There also is a concern that a carbon reduction program may affect fertilizer manufacturing and result in higher fertilizer costs.

Some of our cooperatives will see higher increases in energy costs relative to other agricultural businesses in other parts of the country. Not all our members will be able to benefit to the same degree from carbon offset trading opportunities. Even where there are good value offset trading opportunities, there will be significant lead time for those to be realized in some farmers’ cases relative to others, and that lead time will result in its own uncertainties and economic hardships.

We have serious reservations about embracing any type of climate change legislation without better information and analysis of its effects on the entire U.S. economy and, in particular, the agricultural sector. The currently available analyses of the aggregate economic effects of U.S. climate change legislative proposals, and the effects on both sectors of agriculture and individual producers, are far too indeterminate, unclear or uncertain for good policy to be made. Furthermore, any action by the U.S. to effectively reduce its GHG emissions in the aggregate, can only be sustained if they are undertaken by other nations around the world that are concurrently adopting equally significant reductions.

As previously mentioned, farmer cooperatives market a wide range of commodities and value added products, some of which are produced under energy-intensive circumstances while others may be import-sensitive or rely on a strong export market. If the only recourse is to pass along increased costs to the consumer in the form of higher priced goods, we will lose our competitive edge in the global marketplace.

Furthermore, those agricultural products with the least opportunity to participate in an offset market will have the highest sensitivity to competition from international competitors not subject to emissions reductions standards. For example, the biggest competition U.S. specialty crop producers face comes from Central and South America. Legislation should not give overseas producers an unfair competitive

advantage due to the fact that they do not have to comply with emissions reduction goals.

As currently drafted, H.R. 2454 does not provide adequate assurances that cost containment measures will be included for the agricultural sector putting us at a competitive disadvantage, globally.

Concluding Remarks

As with any difficult issue, farmers, ranchers and the wider agricultural community still have a lot to learn about this subject. We would contend that Congress does too. Instead of rushing a bill through for the sake of political expedience, we encourage Congress to focus on all the important issues that remain outstanding, including an examination of the basic structure of what a GHG emissions reduction program would look like for all sectors of the economy.

While outside the jurisdiction of this Committee, we feel it important to gain a better understanding of the tax implications of a cap-and-trade system. For example, there has been little discussion on how and when allowances will be taxed. What is the taxpayer's basis in offsets and allowances? What is the tax character of gains and losses recognized on sale or exchange of allowances? Specific to farmer cooperatives, will income from the sale of allowances or offsets be patronage-sourced? Without answers to questions like these, it is impossible for any farmer, rancher, cooperative or agribusiness to make an informed decision this legislation.

Furthermore, we must reconcile U.S. standards with those overseas so that we remain competitive in the global marketplace. Congress must gain a better understanding of the potential impacts this would have on our food security and food prices. We need to understand how this legislation will affect the food chain, from farm to fork. Energy independence has been a rallying cry for a number of years. We pride ourselves in seeking less reliance on Middle Eastern oil. However, this debate seems to be ignoring the potential for greater reliance on foreign food. We cannot afford to allow our agriculture production to move overseas where it's cheaper to operate putting thousands of hard working farmers and ranchers out of business. If the only recourse is to pass along increased costs to the consumer in the form of higher priced goods, we will lose our competitive edge in the global marketplace. As a matter of food security, we must maintain a healthy agricultural industry in the United States.

Finally, we feel it unwise and irresponsible to enact mandatory GHG measures without a more complete and thorough understanding by all the major affected U.S. parties as to what these changes would mean for their incomes, businesses, livelihoods and ways of life. We think it is also unwise to adopt such policies without establishing that U.S. agriculture's overseas competitors are going to bear comparable costs as a result of their own nations' efforts to reduce GHG emissions; U.S. agriculture's competitiveness in both domestic and export markets could be hurt significantly if this is not the case. In addition, any measures adopted to address these competitiveness concerns must also be WTO legal and not threaten possible retaliatory trade sanctions. Lastly, we are especially concerned about the cost implications of GHG legislation given the depths and extent of the nation's current economic crisis whose negative affects are all too immediate and from which we have yet to see a reprieve.

Our nation's top priority should be to get our fiscal house in order. As we do, NCFC would advocate for a voluntary, pro-growth, technology-driven approach to expanding our energy resources while addressing climate change.

Again, thank you for your thoughtful leadership on this important issue. NCFC looks forward to working with you to improve climate change legislation so that it recognizes the importance and unique nature of production agriculture and farmer cooperatives.

SUBMITTED LETTER BY NATIONAL MEAT ASSOCIATION, *ET AL.*

June 11, 2009

Hon. COLLIN C. PETERSON,
Chairman,
Committee on Agriculture,
Washington, D.C.;

Hon. FRANK D. LUCAS,
Ranking Minority Member,
Committee on Agriculture,
Washington, D.C.

Dear Chairman Peterson and Ranking Member Lucas:

Thank you for the continuing dialogue you have afforded our associations on the issue of climate change. Your continued outreach to the agricultural community re-

mains our most important forum in which to participate in this monumental undertaking. We are writing to share our perspective on the potential implications of the legislation for the food supply chain and ultimately, American consumers. At this point, we frankly have more questions than answers regarding the impacts of this legislation.

As you probably know, many food industry companies, for sound business reasons, have already undertaken efforts to improve production and energy efficiency in their plants and throughout the supply chain. Many of our member companies have participated in contractually binding CO₂ emission reduction programs. In addition, several of our member companies operate in countries that are subject to Kyoto Protocol reduction requirements, and some have even participated in the Clean Development Mechanism (CDM) projects under the Kyoto Protocol. Thus, our associations are familiar with the proposed scope and intent of many of the requirements included in the legislation. However, the details and specific policy implications are less clear.

Now that the Waxman-Markey bill has moved through the House Energy and Commerce Committee and the bill language is available, we finally have an opportunity to conduct a more thorough analysis of the legislation. At this point, however, because of the complexity involved, the vast majority of our member companies have not fully completed their assessment of the legislation. As we continue our analysis, we want to highlight for you some of the many and complex issues that appear to be the most significant for the food sector—including producers, processors, and consumers. Though many of the details of the legislation have only recently been provided, our limited analysis safely concludes that the legislation would have a significant impact on the entire food supply chain.

The direct cost of allowances for entities that emit more than 25,000 tons of CO₂ will be directly added to the operating cost of each facility. One can safely assume that firms would seek to cover added costs by passing them forward or backward in the supply chain. This will inevitably impact costs for consumers, returns for producers, or a mix of both. Without a reallocation of these costs, processing firms would not remain viable.

Numerous studies have predicted prices for future allowances. The CBO score for the Waxman-Markey bill places the cost at \$26 per ton in 2019, the tenth year of a 10 year budget scoring window. But the CBO budget scoring window does not cover the life of the bill, which is scheduled to require emission reductions until 2050—well beyond CBO's analysis. We believe an analysis through 2050 is critical in order for our industry to understand the costs in the out years when allowance supply is reduced to less than ½ the level at the beginning of the legislative mandate.

The allocation formula in the Waxman-Markey bill exempts through 2029 some of the most high intensity users of energy from needing to purchase a significant portion of their allowances. Meanwhile, food production facilities will have to purchase allowances. At the same time, they will be competing in energy markets with those that received a significant portion of their allowances for free. It is unclear how this imbalanced competition in the energy market will impact entities that must continue to pay full price for allowances. We are also focused on the downstream effect of this cost structure for the farm gate and at retail for consumers.

Not only is it important to understand the direct cost of allowances, it is equally important to understand the added indirect impact of higher energy costs on the food production chain. These costs would impact not only those above the reduction threshold, but those below it as well. Free allowances to the energy producing sectors will only cover a portion of their CO₂ emissions, so even though free allowances will not end until 2029, the impact of higher energy prices will begin to be felt immediately. The impact of higher energy costs on consumers, producers and processors is not yet well understood, but it will not be marginal.

It is surmised that the legislation would create incentives for the use of more efficient methods of production, resulting in the use of less energy. But as the Committee understands, our industry relies heavily on the use of heat for the sanitation of facilities and the protection of consumers from foodborne pathogens. We can safely project that the current legislation would make food safety interventions more expensive. Despite the demand created by the legislation to reduce energy usage, this is not a place where our companies can responsibly make energy reductions.

Agricultural offsets have been discussed as revenue opportunities for producers and as a means to help alleviate the cost of allowances for emitters. The legislation places several statutory requirements on the creation of offsets which may inhibit the creation of agricultural offsets. Additionally, the legislation places hurdles on the actual use of offsets by emitters. These provisions should be carefully evaluated to determine the degree to which agricultural offsets will be available, and the de-

gree to which emitters could actually use offsets for compliance purposes. An ineffective offset program would not provide benefits to producers and would reduce opportunities for emitters to meet their compliance obligation. Understanding the impact of the statutory provisions on offsets is a critical piece of knowledge that is missing.

Many observers and indeed proponents of this legislation concede it will come with costs. We fear that efforts to help certain sectors minimize burdens will significantly impact the cost structure of one of the most critical sectors of the national economy: that sector which provides the most basic human necessity—food.

We believe the Agriculture Committee should carefully analyze the legislation to fully understand the concerns we have raised, and we applaud your efforts to review this pending legislation through the hearing process.

During these difficult economic times, we believe it is unwise to insert additional economic uncertainties into an already fragile marketplace. Given this and the issues raised in this letter, in the absence of a more thorough examination of this monumental bill and its economic consequences on the food supply chain and American consumers, we respectfully ask that Members not support passage at this time.

National Meat Association;
American Meat Institute;
National Chicken Council;
National Turkey Federation;
National Grain and Feed Association.

SUBMITTED STATEMENT BY NATIONAL PORK PRODUCERS COUNCIL

Introduction

The National Pork Producers Council (NPPC) is an association of 43 state pork producer organizations and serves as the voice in Washington, D.C., of America's 67,000 pork producers. The U.S. pork industry represents a significant value-added activity in the agriculture economy and the overall U.S. economy. In 2008, it marketed more than 110 million hogs, and those animals provided total gross receipts of \$15 billion. Overall, an estimated \$21 billion of personal income from sales of more than \$97 billion and \$34.5 billion of gross national product are supported by the U.S. hog industry. Iowa State University economists estimate that the U.S. pork industry is directly responsible for the creation of nearly 35,000 full-time equivalent jobs and helps generate an additional 515,000 indirect, mostly rural, jobs. The U.S. pork industry today provides about 20 billion pounds of safe, wholesome and nutritious meat protein to consumers worldwide.

Pork Producers' Commitment to the Environment

The pork industry is proud of the reputation it and its members have earned for initiating innovative environmental improvement programs. NPPC and its producer members take an active role in advocacy at both the Federal and state levels for clean water environmental initiatives. Accordingly, the U.S. pork industry continues to treat as its top goal meeting worldwide consumer demand while simultaneously protecting water, air and other environmental resources that are in our care or potentially affected by our operations.

In this regard, pork producers take a broad view of what it means to be environmentally responsible farmers and business people, and we have fully embraced the fact that our pork producing operations must protect and conserve the environment and the resources we use and affect. We take this responsibility with the utmost seriousness and commitment, and it was in this spirit that our producer members made a major commitment to environmental conservation. NPPC played a leadership role in the establishment of Air Consent Agreements ("ACA") between the U.S. Environmental Protection Agency and approximately 2,700 swine operations. We are also a founding member of the Agricultural Air Research Council. NPPC has been instrumental in the establishment of the National Air Emissions Monitoring Study ("NAEMS"), and pork producers from across the country are providing the nearly \$6 million in research funds that are being used by NAEMS to fund this air research, including tracking of greenhouse gas emissions, at six swine farms nationwide.

To promote confidence in what our producers do and how they do it, NPPC is working with producers to affirm their obligation to safeguard natural resources in all of their practices. To this end, pork producers are committing themselves to:

- Managing manure as a valuable resource and using it in a manner that safeguards air and water quality.

- Managing air quality from production facilities to minimize the impact on neighbors and the community.
- Managing operations to protect the quality of natural resources.

Similar commitments are being made by pork producers in the critical areas of food safety, animal well-being, public health, employee care and all aspects of our community responsibilities.

Finally, as an industry, pork producers have engaged in a voluntary effort to calculate their total carbon footprint, from farm to fork, and identify sources of climate emissions and ultimately opportunities for emissions reductions. The research, financed by pork producers and being conducted through the University of Arkansas Applied Sustainability Center together with an industry working group, is designed to help the industry better understand its role in the effort to address climate change.

Pork and Livestock Agriculture's GHG Performance

While pork producers are engaged in their effort to voluntarily determine the complete GHG footprint of the pork sector, the considerable information already available about pork's and animal agriculture's GHG performance allows a sound, preliminary picture to be formed.

Contrary to the preconceptions of many observers, the domestic animal agriculture industry is a considerable success with respect to its low and relatively constant GHG emissions and the dramatic trend toward lower emissions per unit of food. Some of the discrepancy between the conventional or perceived wisdom and the actual performance of U.S. animal agriculture stems from the misuse of the results from the analysis conducted in support of the U.N. Food and Agriculture Organization's 2006 report, "Livestock's Long Shadow".¹ That report said livestock agriculture worldwide was responsible for 18 percent of the world's GHG emissions. But approximately half of the emissions attributed to livestock in that report resulted from worldwide deforestation efforts, an activity not taking place in the U.S. Another large portion of the FAO figure comes from enteric emissions from ruminant species, an emissions source that is not included in this proposed registry, nor is it included in European programs. In fact, as can be seen in the report, modern animal feeding operation systems in the U.S. are shown to represent only about five percent of the world's emissions, and four percent if you do not include the deforestation element (see Table 3.12, page 113). This latter figure is considerably more consistent with the figure cited by EPA in its recent GHG Inventory, where modern U.S. livestock agriculture is reported to be responsible for approximately 2.5 percent of U.S. GHG emissions, about half of which are from enteric fermentation (1.7 percent of total).²

As these statistics show, modern U.S. livestock agriculture is a very small portion of U.S. emissions. Manure methane emissions from all livestock, as reported in the EPA Inventory, are only 0.6 percent of total U.S. emissions of all GHGs on a CO₂ equivalent basis.³

Modern U.S. livestock agriculture is a tremendous example of how the world can produce the goods and services people need, in this case the very nutritious, safe food we eat, while producing less GHGs per calorie of food. In our view, it makes far greater public-policy sense to consider total food needs, given the size of a population, its income levels and preferences and needs for food products, and then consider how well a particular food production system meets these needs in total while also conforming to other societal objectives, such as food safety, affordability and a minimal environmental footprint, including fossil fuel use and GHG emissions.

From this perspective, the critical question is how well will a particular food production system perform as a whole and in the context of the total amount of food that has been and will be needed to feed the U.S.'s and the world's growing population? The U.N. noted in its November 2008 report that there are "limitations to emissions reductions in the agriculture sector particularly because of . . . providing food for a global population that is expected to continue to grow" and that "it would

¹UN Food and Agriculture Organization (FAO), 2006. "Livestock's Long Shadow; Environmental Issues and Options." FAO, Rome, Italy. See page 112, and table 3.12.

²Environmental Protection Agency (EPA), 2008. "Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2006." EPA, Washington, DC. Calculated from statistics provided in tables ES-2 and 6-1.

³The other .2 percent of emissions associated with livestock production comes from nitrous oxide.

be reasonable to expect emissions reductions in terms of improvements in efficiency rather than absolute reductions in GHG emissions.”⁴

Some recent statistics indicate that there is great cause for hope in this regard:

- Animal agriculture’s GHG emissions from 1990 to 2005 have remained nearly constant, increasing by only about 3.5 percent since 1990, while over the same period total U.S. meat production has increased 40 percent, milk production has increased almost 16 percent and egg production has increased about 33 percent.⁵ This means almost 30 percent less in total livestock sector GHG emissions per pound of meat produced from 1990 to present.
- Between 1948 to the present, while the manure generated by U.S. meat producing animals has been reduced in total by 25 percent, the production of meat from the animal herd has increased 700 percent.⁶

Not surprisingly, and given the success of the U.S. meat sector in improving its efficiency and reducing its footprint, the same U.N. report noted that modern agriculture is key to meeting the GHG challenge of reducing or ending the conversion of forestland through the “intensification of agriculture . . . by producing more on land already in production.”

Pork Industry’s Tough Economic Outlook

Like many other segments of the U.S. economy, the pork industry has suffered financially over the past 20 months and continues to suffer tough economic times. Last year, U.S. pork producers lost an average of \$22 on each hog marketed, and it has been estimated that the industry, as a whole, has lost 35 percent of its equity since September 2007. Until recently, the industry’s one bright spot had been exports. Exports helped temper U.S. pork producers’ losses in 2008, when the United States exported 2.05 million metric tons, or 4.4 billion pounds, of pork valued at nearly \$5 billion. Last year was the 17th consecutive year of record pork exports.

Unfortunately, much of this evaporated under the pressure created by the H1N1 flu outbreak. Before the flu outbreak, pork producers were losing money, but there was reason for some optimism. Exports were holding strong, and we were heading into the summer months, generally the strongest period for seasonal consumer demand. But the first day the flu outbreak received wide media coverage—April 24—pork producers were losing \$10.91 per pig. After 2 weeks of reporting on the “swine” flu, pork prices fell dramatically, with producers losing an average of \$20.60 per pig, or nearly \$8.4 million a day. Pork prices dropped because of a dip in domestic demand as well as import bans on U.S. pork imposed by a number of U.S. trading partners, including Russia and China. Fortunately, Russia’s ban now applies only to 13 states, most of which are not major pork producers, and at least a dozen countries that banned, or indicated they would ban, U.S. pork now have reversed themselves. But we are in a deep hole, and it will be a long while before we can climb out—and pork farms are going out of business as a result.

It is against this grim economic backdrop and outlook that NPPC is considering the merits of and concerns with H.R. 2454, the American Clean Energy and Security Act of 2009.

Specific Observations on H.R. 2454

1. *Cap-and-trade is preferable to a carbon tax*—Should Congress decide to pass climate change legislation, after looking closely at the challenges facing the domestic and world economies and the need for controlling greenhouse gas emissions, NPPC believes that a market-oriented cap-and-trade system of the type that H.R. 2454 advances is far preferable to either a simple command-and-control program or a carbon tax. A cap-and-trade system has the possibility of achieving greater—and more sustainable—emission reductions at a greatly reduced cost than a carbon tax on GHG emissions. This is because cap-and-trade provides covered entities the flexibility to choose the lowest-cost abatement method available while guaranteeing the required emissions reductions are made. Cap-and-trade also turns these least-cost alternatives into financial opportunities and will make all GHG capped emitters have a vested interest in finding further low-cost and innovative ways to reduce and offset emissions. This combination of flexibility and positive incentives means a cap-and-trade

⁴ UNFCCC Technical Report #8, “Challenges and opportunities for mitigation in the agricultural sector”, November 21, 2008. See pages 7–8.

⁵ U.S. Department of Agriculture (USDA), 2007. “U.S. Agriculture and Forestry Greenhouse Gas Inventory: 1990–2005.” USDA, Washington, D.C. See Table 1–2, Page 5.

⁶ Calculated from various USDA–NASS data sources.

program meets the environmental goal at the lowest cost to the economy as a whole.

2. *Not treating agriculture as a capped sector is the right policy*—H.R. 2454 has adopted the correct approach with respect to not treating agriculture as a capped sector but rather as a sector eligible for the offsets provisions in the bill. NPPC believes that greater environmental benefits can be achieved by not regulating agriculture under an emissions cap. With regard to the agricultural sector as a whole, attempts to cap the two million farms and ranches in this country would be costly and burdensome and result in greater costs for society than the benefits that would be derived from the resulting GHG emissions reductions.

3. *Increased costs remain a serious concern for pork producers*—Among our top concerns with any piece of climate change legislation, given the economic conditions of our industry, are the increased costs of electricity, diesel fuel, propane, fertilizer, chemicals and building materials such as steel and concrete that our operations will incur. While we do not yet have good estimates of exactly how large these will be, we anticipate increases in the 20 percent range or greater. We are already losing money today for every pig sold, and any additional costs will simply drive us deeper and more firmly into the hole. To the extent that some of our producers can reduce some of these losses with additional income from the sale of carbon offset credits, that is a good thing. But we do not believe that these revenues will outweigh the costs. And many of our producers will have no opportunity to generate credits. Most of our producers able to generate credits, they will need to make a sizable capital investment, and such capital is nearly impossible to come by today given the underlying economic weakness in the industry. There is no question that meeting the challenges laid out for the country and our sector by climate change legislation will never be easy, and our members do not take these challenges lightly, but meeting the climate change challenges in the least economically detrimental manner is critical to the survival of pork producers.

4. *Maintaining international trade opportunities and a level playing field remain top concerns for pork producers*—On the other side of these added costs, of course, are our concerns about access to markets and a level playing field with our competitors overseas. We are heavily dependent on the export of pork to consumers worldwide for a large portion of our revenues, and without these export opportunities, our chances of sustaining our farms and industry simply do not exist. Cap-and-trade legislation concerns us in two regards in this area. First, we are deeply concerned about having to bear the costs of GHG emissions controls while our competitors overseas are not. Loss of market share both domestically and in foreign markets will result, and this is a major issue. If the U.S. is to adopt such legislation, it is critical that the countries where our competitors operate bear similar responsibilities. Second, H.R. 2454 as passed out of Committee raises concerns among many trade experts that some of the measures to transfer income from capped emitters to affected industrial sectors will result in trade disputes and outright cases being brought before the WTO against U.S. companies. Aside from the obvious loss of further momentum toward opening the world to greater trade and its attendant benefits, trade disputes commonly end up involving food and meat products. We are very concerned that pork producers will be hurt by the collateral damage of such trade disputes and further straining of the relationships needed in general to expand trade opportunities. Great care must be taken on these measures to avoid possible WTO disputes and to eliminate them or minimize them to the fullest extent possible. We would urge that, going forward, both USDA and EPA work in close consultation with the United States Trade Representative regarding the impacts on trade of any domestic or international GHG action.

5. *The final bill must identify USDA as the lead agency on the design and implementation of the agricultural offsets program*—NPPC believes it is critical that the final bill explicitly identify USDA as the lead agency for the agricultural offsets program. USDA should promulgate the detailed rules and guidance pertaining to the program, as well as oversee its day-to-day implementation. USDA has the institutional resources as well as the technical expertise necessary to carry out this function, while EPA does not. Furthermore, USDA has a track record of working with farmers on verification of agricultural practices as well as studying, modeling and measuring carbon sequestration and other GHG emissions reductions by the agricultural sector. EPA, in consultation with the relevant Cabinet agencies, can have responsibility for setting broad offsets program objectives and standards and tracking allowances and offsets in a GHG

registry. USDA has the statutory authority provided in the 2008 Farm Bill, the institutional resources and the technical expertise necessary to create and administer an agricultural offset program that works for production agriculture. USDA should be given adequate flexibility in implementing the offsets program to allow it to account for new technologies and practices that result in emissions reductions from agricultural sources.

6. *Early actors providing additional offsets must be allowed into the program*—Pork producers previously have initiated projects and practices such as the use of a methane digester with the flaring of gas or electricity generation that have led to GHG reductions. Such systems are expensive to maintain and operate, and it is not uncommon for their operation to cease as economic pressures rise, as the USDA–NRCS reported in 2007 in its study of the economics of methane digesters. Yet if the digesters continue to be operated, methane is captured and destroyed, providing additional GHG benefits. These producers and others in comparable circumstances should not be disadvantaged by being excluded from compensation for future offsets that occur as a result of the future operation of their digesters or similar projects. We believe it is both fair and appropriate to push the allowed initiation date for such projects as far back as possible, and we cannot support the 2006 date in H.R. 2454 as currently drafted. We appreciate the amendment adopted in the markup of the bill that would give the EPA Administrator discretion to allow earlier dates on a project-by-project basis, but we find that measure both unnecessary and too uncertain in its effect and therefore not good policy. We suggest, instead, January 1, 1999, as a starting point for eligible reduction projects.

7. *Verification of agricultural offsets must rely on the power of strong research, statistical sampling and spot checks to keep the cost of this important administrative cost down*—The final bill must allow and direct the program administrator to devise protocols, methodologies, procedures, registry requirements, verification requirements and any other relevant process issues to be as operationally lean as possible and to reduce overhead costs of compliance.

8. *Give farmers certainty whenever possible as to what types of projects will most likely qualify for credits*—The final bill must include a list of the types of agricultural offset activities that are known to qualify for the offsets program immediately and must direct and allow the program administrator to update and revise this list quickly as new types of sound projects and practices become established and verifiable.

9. *Deal with the issues of the permanence and reversals of offsets in the simplest manner possible by allowing the offset prices paid to vary according to the degree of permanence*—H.R. 2454 fails to define the term permanence in the context of offsets, and it is critical that the final bill do so in a manner that allows the program to be as operationally lean as possible and to reduce overhead costs of compliance. Rather than select an arbitrary time frame for offsets to be permanent, the price paid for offsets should be allowed to vary according to the permanence of the offsets, with top premiums being paid for those that are literally permanent. The risks of unintentional reversals and leakage must be fully managed at a program level, not at a project level. (At the same time, offset providers must be held accountable for any and all intentional reversals, and such responsibilities should be spelled out in the contract.) Biological sequestration offsets must be credited at a discounted rate so that the difference between the value of the full offset and a discounted offset is the source of funds to manage all risks of reversal.

America's pork producers have been and will continue to be good environmental stewards. Many of them have adopted practices that have lessened their environmental footprint and cut greenhouse gases. But they are very concerned about the added costs—particularly given the pork industry's current economic crisis—they will incur because of climate change legislation.

NPPC shares those concerns and will work to ease the impact on U.S. pork producers of any climate change legislation. The organization will continue to monitor H.R. 2454, the American Clean Energy and Security Act of 2009, as it moves through the legislative process.

[If you have questions or need additional information, contact Kirk Ferrell or Michael Formica at [Redacted].]

SUBMITTED LETTER BY AMERICAN FISHERIES SOCIETY, *ET AL.*¹

June 11, 2009

Hon. COLLIN C. PETERSON,
Chairman,
 Committee on Agriculture,
 Washington, D.C.;

Hon. FRANK D. LUCAS,
Ranking Minority Member,
 Committee on Agriculture,
 Washington, D.C.

Dear Chairman Peterson and Ranking Member Lucas:

Our organizations represent millions of hunter and angler conservationists and outdoor enthusiasts, and we write you today to support your efforts to help shape the American Clean Energy and Security Act (H.R. 2454) to be responsive to the needs of foresters, farmers and ranchers whose private lands serve as vital habitat for fish and wildlife.

Our goals are twofold: to seek legislation that provides incentives to landowners to keep their land intact while maintaining quality habitat conditions, and to achieve carbon emissions reductions in a manner that is cost-effective so that energy input costs to farmers, ranchers and forest producers remain stable. America's agricultural lands and private forests sequester much of our country's annual carbon emissions, and Federal entities estimate that landowners could double this capacity with appropriate incentives. In conjunction with dedicated funding for fish and wildlife habitat programs, sportsmen organizations see real opportunity to make significant gains.

We believe that the U.S. Department of Agriculture (USDA) has the appropriate expertise and relationships with farmers, ranchers and forest producers to help develop guidelines and implement offset markets in these areas. We recognize that the Environmental Protection Agency will have authority to assure performance, quality control, and certification of Federal offsets, but this should be in support of—not in place of—USDA's leadership role in working on the ground with private landowners in developing and implementing offsets for agriculture and forestry.

Improving forest and rangeland health, protecting grasslands and native prairie, and creating a positive dynamic among landowners, USDA and State Fish and Wildlife Agencies will lead to rapid progress in protecting fish, wildlife and its habitat. Thank you for considering our views.

SUBMITTED QUESTIONS*

Questions Submitted By Hon. Stephanie Herseth Sandlin, a Representative in Congress from South Dakota

Responses from Hon. Thomas "Tom" Vilsack, Secretary, U.S. Department of Agriculture

Question 1. I'd like to ask a few questions on USDA's input regarding EPA's speculative use of indirect land use in their proposed lifecycle greenhouse gas rule, which I oppose. Can you elaborate on the role USDA will play in the peer-review process for EPA's modeling of land use changes?

Question 1a. Do you believe that USDA has available to it the resources necessary to initiate a research effort that fairly determines such indirect effects?

Question 2. I've talked with small refiners who have an important role in South Dakota and across the Midwest and they have serious concerns about how the Energy and Commerce legislation will affect small refiners. As you know, many small refiners producing under 205,000 barrels per day, are found in the Midwest. My understanding, based on discussions with CHS, is that three co-operative refineries provide over 50 percent of diesel for agriculture. If their costs increase or they are forced out of business, the inevitable cost increases will be very heavily borne by producers. Can you elaborate on what USDA is estimating the cost of this legislation will be on diesel refiners?

¹Signatories: American Fisheries Society * American Sportfishing Association * Association of Fish and Wildlife Agencies * Boone and Crockett Club Congressional Sportsmen's Foundation * Ducks Unlimited * Houston Safari Club Land Trust Alliance * Mule Deer Foundation * National Shooting Sports Foundation * National Trappers Association * National Wild Turkey Federation North American Grouse Partnership * Pheasants Forever * Quail Forever * Safari Club International * Theodore Roosevelt Conservation Partnership * Whitetails Unlimited * Wildlife Management Institute.

*There was no response from the witnesses by the time this hearing went to press.

Question 2a. Does USDA have suggestions for how the legislation could be improved to ensure that small refiners can continue to provide diesel to agriculture?

Response from Bob Stallman; Steve Ruddell; Earl Garber; Fred Yoder; Roger Johnson; Ken Nobis; Hon. Glenn English; and Ford B. West

Question 1. As you know, EPA recently released a report stating the economic benefits for producers under an *agricultural offsets program* may be less than originally anticipated in light of projections of lower than estimated carbon prices. Originally EPA estimated that carbon trading at \$15/ton would result in a reduction of carbon emissions by nearly 700 million metric tons annually from farm and forestry practices, with 25 percent of those savings coming from keeping crop residue in the soil through reduced tillage. However, the recent estimate based on the ACES bill now states that the carbon credits from agriculture and forestry likely won't exceed 300 million tons until after 2040 and most of those offsets would come from planting and preserving forests, not through agriculture. What do you make of this recent analysis?

Question 1a. Have you run figures to estimate whether the potential benefits of an agriculture and forestry offsets program would still be enough to offset the increased input and energy costs likely under this bill?

Response from Roger Johnson, President, National Farmers Union

Question 1. One of the key priorities for establishment of an ag offsets program is the role and eligibility of early actors. I agree this is important. SD farmers and ranchers make up the second largest group of offsets projects under the Farmers Union Carbon Credit Program and have already seen many benefits from participation in this market. NFU and many of commodity groups testifying here with you today have asked that projects begun after January 1, 2001 be considered eligible for offsets credits. The current ACES legislation only makes projects established after January 1, 2009 eligible. If project eligibility is made retroactive to January 1, 2001, as you request, how many of the current offset projects do you estimate would qualify for credits *versus* using the January 1, 2009 deadline?

Response from Hon. Glenn English, CEO, National Rural Electric Cooperative Association

Question 1. According to an analysis provided to my office by NRECA, the more than 300,000 rural electric co-op customers in my state are at risk of unacceptable rate hikes under the Energy and Commerce bill's allocation of allowances. The allocations to South Dakota cooperatives as a percentage of their share of the cap will only be 68%, according to NRECA's analysis, while utilities and even other coops on the West and East Coasts would receive more than 100 percent of what they need. What formula would you suggest for use in a bill and how would that correct the inequities in the current bill?

Question 1a. Have you run the numbers under your proposal and can you share any such analysis with the Committee?

Questions Submitted By Hon. Timothy V. Johnson, a Representative in Congress from Illinois

Response from Hon. Thomas "Tom" Vilsack, Secretary, U.S. Department of Agriculture

Question 1. Secretary Vilsack, multiple agriculture groups in my district, including some here today, have come out in opposition to this bill because it will raise their members' input costs and put them at a disadvantage with foreign competitors. What do you think could be done to address the concerns of rural America and make this bill palatable for the agricultural community? Would you or President Obama withhold support for this legislation if these agricultural concerns were not met?

Question 2. Estimates on how much this bill will cost the average household range from \$98 to \$3,100 a year. With such disparate estimates, why are many in Congress and the Administration rushing this policy through without more thoroughly explaining these costs to the American people?

Question 3. Secretary Vilsack, how can Congress mitigate the cost increases for those producers unable to participate in a potential agriculture offset program?