CONSUMER PROTECTION PROVISIONS IN CLIMATE LEGISLATION

HEARING

BEFORE THE

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OF THE

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[1] Mr. Greenstein did not respond to submitted questions for the record.

CONSUMER PROTECTION PROVISIONS IN CLIMATE LEGISLATION

THURSDAY, MARCH 12, 2009

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON ENERGY AND ENVIRONMENT,
COMMITTEE ON ENERGY AND COMMERCE,
Washington, DC.

The subcommittee met, pursuant to call, at 10:05 a.m., in Room 2322 of the Rayburn House Office Building, Hon. Edward J. Markey (chairman) presiding.

Members present: Representatives Markey, Inslee, Butterfield, Matsui, McNerney, Welch, Green, Capps, Gonzalez, Baldwin, Matheson, Barrow, Waxman (ex officio), Upton, Hall, Whitfield, Shimkus, Pitts, Burgess, Scalise, and Barton (ex officio).

Staff present: Matt Weiner, Clerk; Melissa Bez, Professional Staff; Alex Barron, Professional Staff; Lorie Schmidt, Senior Counsel; Michael Goo, Counsel; and Lindsay Vidal, Press Assistant.

OPENING STATEMENT OF HON. EDWARD J. MARKEY

Mr. MARKEY. In over 30 years in Congress one word has always come first in every piece of legislation, and that is the word, consumers. From telecommunications to fuel economy standards, I have always found that starting with the goal of saving families money through technological innovation is the best vehicle for effective public policy.

For too long American consumers have been unprotected against costs from our old energy economy and the threat of global warming.

First, America's dependence on foreign oil continues to impact our economy. Before the sub-prime and derivatives crisis created a financial markets meltdown, $4 gasoline and sky-rocketing goal and natural gas prices sent early shockwaves through the economy, destabilizing our financial house of cards.

Second, consumers are losing money on an inefficient, outdated energy grid that wastes about half of the energy it transports.

Third, by delaying action on clean energy and global warming, consumers are losing money every day on the lost innovation of new, clean energy products.

Fourth, we have heard in this committee that the cost of climate inaction will have negative financial consequences. We have already seen the impact of this on the insurance industry, as storms have increased in strength from a warming earth.

And so, much like the Telecommunications Act and fuel economy legislation, climate legislation is consumer legislation, and there is

a proper way and an improper way to craft this legislation. Improperly done, climate legislation could unjustly enrich corporations at the expense of consumers. Improperly done, the investments needed to drive the clean energy economy will be put on consumers, while polluters get a free pass.

Properly done, we will put a cap on pollution that will allow businesses the flexibility to innovate and create highly-profitable clean energy solutions. Properly done, we will defray costs to consumers as we transition to a clean energy economy.

Of course, this is where it all gets very tricky, and that is why we are here today. Creating a market base global warming bill means that the market will set a price on the right to send carbon into the atmosphere. These permits will have a financial value, allowing companies that become clean and efficient to prosper while polluters will be forced to pay. The key is to protect consumers from drawing the short straw and paying for these permits when a company decides to pass the cost directly to the consumer.

The danger here is that if we give pollution permits for free to polluting companies, they may actually charge consumers for the market value of what they receive free of charge and pocket a huge cash windfall. Imagine this. A scalper finds Celtics tickets outside the Boston Garden. Will he sell them to the next consumer for free? No. He will charge the going rate.

To address this problem some have suggested that instead of giving away these permits to emitters for free, the bill should ensure that the value to local electric utilities and other entities that are regulated by the State public utility commissions or otherwise subject to cost of service requirements so that the money actually benefits consumers.

This position is shared by various groups like the U.S. Climate Action Partnership, Edison Electric Institute, and the National Association of Regulatory Utility Commissioners. Others have come up with alternatives. The Center for Budget and Policy Priorities is here with us today. They have proposed a policy that would completely eliminate any negative financial impacts from climate legislation on the poorest one-fifth of Americans. And we shouldn't forget that low-income Americans will be disproportionately affected by the impacts of global warming.

It has been suggested that we use some of the revenues from a climate legislation to fund energy efficiency programs and invest in new cost-saving technology so that we can all benefit from the long-term savings potential afforded by a clean energy economy.

The bottom line is that there are many options before us on how to benefit and protect consumers under a cap-and-trade system. The subcommittee looks forward to exploring these options with all of the members this morning.

Let me now turn and recognize the Ranking Member of the subcommittee, the gentleman from Michigan, Mr. Upton.

OPENING STATEMENT OF HON. FRED UPTON

Mr. UPTON. Thank you, Mr. Chairman. The title of today's hearing, of course, is "Consumer Protection in Climate Legislation," which recognizes the undisputable fact that climate legislation will

increase the cost of energy, and consumers will need to be protected.

These are some very tough and difficult times for our country. Michigan, in particular, where I am from, has been hit very, very hard. In fact, in 2008, approximately 21 percent of all utility accounts nationally were overdue, with folks carrying past-due balances on average of about $160 on an electric bill and $360 for natural gas. Total account of debt in Mr. Markey's Massachusetts was about $456 million, with 28 percent of all electricity accounts and 48 percent of gas accounts being past due. In Michigan the account debt totaled $367 million, and in some parts of my State one in three consumers are already behind on their bills. One in three.

And we all know which direction these numbers move when prices go up. Congress must make its number one priority to get the economy back on track and protect jobs, and that is my top priority as well. Keeping energy affordable is the key to this equation.

According to an MIT model of a 100 percent auction cap-and-trade, the American people will be taxed $366 billion in 2015, four times as much as the President's estimate of $80.3 billion in 2015. Job losses under such a plan would be greater than 6 million. Increased energy costs would near $1 trillion in 2030. Increases in electricity costs could be greater than 100 percent. GDP could fall perhaps as much as 7 percent by the year 2050. And a family of four could expect to pay as much as $4,500 in additional costs by the year 2015.

In written testimony OMB Director Orszag stated that the average household cost would be $1,300 for a 15 percent cut in emissions. This Administration has seen an 80 percent cut. Our former colleague, Sherrod Brown, now a senator from Ohio, who opposed capped trade last June, said that Obama's plan, President Obama's plan would lead to an increase in energy cost and would drive American firms abroad, and he said this, "It really does say to manufacturing, go to China where they have weaker environmental standards. And that is a very bad message in bad economic times, in any economic times."

There are not too many absolutes in this business of politics, but one thing is irrefutable. As power demands increase, our Nation will continue to grow, our power demands as a Nation will continue to grow. Unless we pursue coherent, pragmatic policies, we can, in fact, send our Nation's economy into a freefall, and there will be great difficulty to keep the lights on in homes in across the country.

I yield back.

Mr. MARKEY. Great. The gentleman's time has expired.

The Chair recognizes the Chairman of the full committee, the gentleman from California, Mr. Waxman.

OPENING STATEMENT OF HON. HENRY A. WAXMAN

Mr. WAXMAN. Thank you very much, Chairman Markey.

Before we start crying about what things are going to be like, let us realize where they are right now for consumers. Our consumers are paying an average American household $2,800 more in 2008, for basic energy needs than they spent in 2001. This is not a consumer-friendly time in the energy sector. Average household ex-

penditures for gasoline, electricity, and home heating increased by 81 percent between 2001, and 2008, almost four times the overall inflation rate in this same period of time, which was 21 percent.

And while energy prices climbed, our dependence on oil grew. We send more and more of our wealth overseas instead of keeping it here at home, and with no plan to address global warming our children's future is in jeopardy.

Low-income consumers take a drubbing in the current system. Not only do they bear unaffordable energy costs, families with low income also find it harder to cope with the public health consequences of unchecked climate change. The poorer often hit the hardest by extreme weather events that will increase if we fail to reduce global warming. The pictures coming out of New Orleans after Hurricane Katrina showed an unforgettable contrast in the abilities of the rich and the poor to cope with such catastrophes.

This committee will have an opportunity to put the country back on track. If we enact a comprehensive energy and climate bill, we can help low-income families while helping all American families. Low-income and all American families will benefit from the increase in domestic jobs that will accompany a clean-energy future. They will benefit from reducing our dependence on foreign oil, which will, in turn, reduce the need for our military to engage in unstable parts of the world. We can turn the page to a brighter future, but we must design our legislation carefully.

The witnesses you have assembled today will tell us a poorly-designed program to reduce global warming, pollution could impose significant costs on low-income consumers. This means that we have to be smart about how we are going to design this legislation.

There are various ways to assist consumers, especially low-income consumers with a transition to clean energy future and reduce global warming pollution. We are going to hear about energy efficiency programs that can reduce consumers energy bills, even if the rates increase, and reduce the overall costs of the program to the country as a whole. By making the country more efficient these programs make our economy more competitive.

The Center on Budget Policy and Priorities suggest that allowances be auctioned and that some of the proceeds be sent to low and perhaps middle-income consumers to offset increased costs of reduced global warming pollution. Another suggestion is to provide allowances for the benefit of consumers to local companies that distribute electricity and natural gas, and we will hear from a consumer advocate and an electricity company about how that approach would work. I think it is important we have this hearing, we recognize the consequences of legislation on consumers as we obviously have to recognize the consequences on industries, businesses, our trade, and our economic future overall. And that is part of the job of making sure that we pass a broad, comprehensive energy bill which we hope to do before the Memorial Day recess.

Thank you, Mr. Chairman. Yield back my time.

[The prepared statement of Mr. Waxman follows:]

Opening Statement of Rep. Henry A. Waxman
Chairman, Committee on Energy and Commerce
Consumer Protection Policies in Climate Legislation
Subcommittee on Energy and Environment
March 12, 2009

Today's hearing gives us the opportunity to focus on how climate change policy will affect consumers, particularly low income consumers.

Any discussion on this topic must begin with the recognition that our current policies are failing.

The last seven years have rendered a judgment on the energy policies of the past. They are not consumer friendly. The average American household spent almost $2,800 more in 2008 for basic energy needs than they spent in 2001.

Average household expenditures for gasoline, electricity, and home heating increased by 81% between 2001 and 2008 — almost four times as fast as the overall inflation rate over this same time period (21%).

And while energy prices climbed, our dependence on oil grew. We send more and more of our wealth overseas instead of keeping it here at home. And with no plan to address global warming, our children's future is in jeopardy.

Low income consumers take a drubbing in the current system. Not only do they bear unaffordable energy costs, families with low incomes also find it harder to cope with the public health consequences of unchecked climate change.

The poor are often the hardest hit by extreme weather events that will increase if we fail to reduce global warming pollution. The pictures coming out of New Orleans after Hurricane Katrina showed an unforgettable contrast in the abilities of the rich and poor to cope with such catastrophes.

This Committee will have an opportunity to put the country back on track. If we can enact a comprehensive energy and climate bill, we can help low income families while helping all American families.

They will benefit from the increase in domestic jobs that will accompany a clean energy future.

They will benefit from reducing our dependence on foreign oil, which in turn will reduce the need for our military to engage in unstable parts of the world.

We can turn the page to brighter future, but we must design our legislation carefully.

Our witnesses today will tell us that a poorly designed program to reduce global warming pollution could impose significant costs on low income consumers.

That means we have to be smart when we design the program. And that is the purpose of today's hearing.

Today's witnesses will discuss various ways to design a program that assists consumers, especially low income consumers, with the transition to a clean energy future and reduced global warming pollution.

They will tell us about energy efficiency programs that can reduce consumers' energy bills, even if the rates increase, and reduce the overall cost of the program to the country as a whole. By making the country more efficient, these programs make our economy more competitive.

The Center on Budget Policy and Priority suggests that allowances be auctioned and that some of the proceeds be sent to low and perhaps middle income consumers to offset increased costs of reducing global warming pollution.

Another suggestion is to provide allowances — for the benefit of consumers — to local companies that distribute electricity and natural gas. We will hear from a consumer advocate and an electricity company about how that approach would work.

I look forward to exploring these issues further with today's witnesses.

Mr. MARKEY. The gentleman's time has expired.

The Chair recognizes the Ranking Member of the full committee, the gentleman from Texas, Mr. Barton.

Mr. BARTON. Thank you, Mr. Chairman. Before I do my opening statement, could I just ask a process question? And I don't know the answer, so this is not a set up.

Mr. MARKEY. Absolutely.

Mr. BARTON. Most of our hearings are televised where we have a TV feed here, and if we want to stay in our office and watch it on the internal House channels we can. I notice our cameras aren't on. Is—do we have a technical problem, or is there——

Mr. MARKEY. Can I—I thank the gentleman. The gentleman from Illinois, Mr. Shimkus, brought this issue to our attention last week.

Mr. BARTON. Oh, I am sorry.

Mr. MARKEY. No, that is fine, and on Tuesday the House——

Mr. BARTON. I know you are not camera shy.

Mr. MARKEY. The office responsible for this brought up a separate group of portable cameras that made it possible for all of this to be televised as they repair these cameras. We made the same request for this morning. We thought that they were going to be showing up again this morning with all the portable equipment, and they are not here.

Mr. BARTON. OK.

Mr. MARKEY. But the request was made. Our goal was to have the set-up the same as it was on Tuesday, and I actually don't know what happened, but I know that——

Mr. BARTON. But these cameras just don't work.

Mr. MARKEY. They do not work.

VOICE. I thought it was because the Michigan, Iowa basketball game in the first round of the Big Ten Tournament is——

Mr. MARKEY. What time is that on today?

VOICE. 2:30.

Mr. MARKEY. OK. OK. The hearing will be concluded before 2:30.

Mr. BARTON. Thank you. I just wondered about—thank you.

Mr. MARKEY. So I don't—I will find out what happened.

Mr. BARTON. OK. Not a problem. Thank you, Mr. Chairman, for this hearing.

The task of the hearing consumer protection policies in climate legislation is almost an oxymoron. It is not quite, but it is obvious that if you have a serious cap in trade component to climate change legislation, that there are going to be serious economic consequences. I don't think those economic consequences can be overcome by some sort of an internal reshuffling of the monies that are raised through the carbon tax, through a cap-and-trade policy. But it is a noble cause to at least attempt to see if they might, could be alleviated.

The best way to alleviate or guarantee consumer protection in climate change legislation is not have a cap-and-trade component in my opinion. Having said that, I look forward to hearing the witnesses. We have six excellent witnesses, and we are going to have a variety of opinions from these witnesses. I have perused their preliminary testimony or the testimony that we have received in advance, and I think we will have a pretty lively hearing.

With that I yield back, Mr. Chairman.

Mr. MARKEY. The gentleman's time has expired.

The Chair recognizes the gentleman from California, Mr. McNerney.

Mr. MCNERNEY. Thank you, Mr. Chairman.

We all know that energy usage is a complex and difficulty question. We have peak oil looming, which has related problems of price increases. We have climate change, we have national security. But we in this committee have the responsibility to address this question in a reasonable and rational way.

Cap-and-trade I believe can be used as a tool to reduce our consumption, to reduce our greenhouse emissions, but we must be doing, we must do it rationally, we must do it thoughtfully. Certainly we have a variety of opinions which need to be taken into account. We are not going to shove cap-and-trade legislation down the pike without taking these viewpoints into consideration.

But I want to say we don't want to get trapped by the false choice that we can have either clean energy or a good economy but not both. That is a false choice. We—the real choice, I think, is to become efficient and to create new forms of energy. We can do that. Cap-and-trade legislation can help us get there. The real question is how do we do it in a way that doesn't hurt the people at the bottom, hurt the people that are suffering through high utility bills. We can use the revenue from cap-and-trade to do that. We can use it in a rational way, and I think everyone is going to benefit. Our national security is going to benefit. We are going to reduce our consumption. We are going to reduce greenhouse gas emissions.

So I look forward to what the testimony is going to be this morning, and I yield back to the committee.

Mr. MARKEY. OK. The gentleman's time has expired.

The Chair recognizes the gentleman from Pennsylvania, Mr. Pitts.

Mr. PITTS. Thank you, Mr. Chairman, and I would like to thank you for convening this hearing today on this important topic.

As this committee moves forward, I believe that it is essential to keep in mind the negative effects that improperly-drafted climate change legislation will have on the consumers. The best way to protect consumers is to protect their jobs and keep the economy from tanking.

Unfortunately, cap-and-trade legislation would do exactly the opposite, causing serious economic hardships. If a cap-and-trade bill looks anything like the Lieberman, Warner bill we saw last year, it will have drastically negative effects on consumers and the economy. According to a Heritage Foundation study, in the first 20 years alone the bill would have resulted in aggregate real GDP losses of nearly $5 trillion. In the first 20 years it would have destroyed 900,000 jobs and caused nearly 3 million job losses in the manufacturing sector by 2029. Fifty percent of jobs in the manufacturing sector would have been lost. In Pennsylvania it was projected that 94,500 jobs would have been lost in the manufacturing sector by 2030, and according to their model in my district alone $260 to $294 million would have been lost in gross State product in 2025.

This does not sound like a consumer protection measure to me, and no amount of investment and efficiency measures, direct rate

reductions or rebates will mitigate the effects of tremendous job losses in a terrible economy.

Mr. Chairman, our economy is suffering right now. We all recognize that. It is my belief that passing a cap-and-trade bill will continue to add to the economic pain most Americans are feeling right now.

So I look forward to hearing from our witnesses today about how we can truly help consumers and to protect our environment and atmosphere. I yield back.

Mr. MARKEY. The gentleman's time has expired.

The Chair recognizes the gentlelady from California, Ms. Capps.

Ms. CAPPS. Thank you, Mr. Chairman.

Climate change legislation is not only about caps and kilowatt hours but also about kids and communities. The legislation we pass must account for consumers, especially those who are least able to pay for their energy needs. To that end I am very grateful that we are holding this hearing today, and I want to thank our witnesses for traveling here to talk with us about this incredibly important issue.

In my home State of California we have an unemployment rate of more than 10 percent and a poverty rate that is over 13 percent. Like my colleagues, I am very concerned about adding any additional financial burden to those already struggling in these difficult economic times. Low and moderate-income households are always disproportionately affected by hikes in energy costs.

However, I am greatly encouraged by the proposals on the table today that seek to offset costs for lower-income households. Studies by the Congressional Budget Office suggest that lower-income households could even be better off as a result of a well-executed cap-and-trade program, and this assessment does not even include the additional benefits that all citizens will experience as the result of a reduction in greenhouse gasses and hopefully a slowing or reversal of climate change.

As we heard yesterday from United Nations Secretary General, Ban Ki-moon, the cost of inaction are far greater than the cost of action. And these include costs to human health, to our natural resources, and to our infrastructure. So we must act now, but we must also act wisely, ensuring that we are always protecting the most vulnerable among us.

Mr. Chairman, I yield back.

Mr. MARKEY. The gentlelady's time has expired.

The Chair recognizes the gentleman from Kentucky, Mr. Whitfield.

Mr. WHITFIELD. Chairman Markey, thank you very much, and I want to thank the witnesses for being with us this morning. Also, these hearings are vitally important, because it is imperative that as we move forward on this very serious issue that we do frame what the debate is all about, and I think it is very clear that the debate is about the cost of action versus the cost of inaction. And from all of the studies that I have seen the cost of inaction really does not have a—the cost of action does not have a quantifiable benefit that can be calculated in my view.

The cost of implementing a cap-and-trade system and renewable energy mandate definitely does have a quantifiable cost. We asked

a local cooperative in my district to calculate the 5 cent-per-kilowatt-hour penalty that would be assessed in Kentucky if they were not able to meet the proposed renewable energy mandate, and a company, a mid-sized manufacturing plant it would cost them $18,000 per month more as a penalty. And I think at this time with the economy being as weak as it is, unemployment going up, that if we are not very careful, a cap-and-trade system and renewable energy mandate can really have a significant negative impact on our economy.

The second part that I would just like to discuss briefly is that the President in his budget said that the cap-and-trade system would generate around $641 billion of additional revenue for the Government, and he has put that in his Budget, but the sad thing about it is recognizing that coal is going to continue to play a vital role, not only in producing electricity in our country, but also in China. There is not $1 of that cap-and-trade revenue that is going to go into the carbon capture and sequestration research and technology, and I think that is a mistake.

But I do look forward to the testimony of our witnesses today, and thank you for the hearing.

Mr. MARKEY. The gentleman's time has expired.

The Chair recognizes the gentleman from Utah, Mr. Matheson.

Mr. MATHESON. I will waive, Mr. Chairman.

Mr. MARKEY. The Chair recognizes the gentleman from Georgia, Mr. Barrow.

Mr. BARROW. I will waive.

Mr. MARKEY. The Chair recognizes the gentlelady from California, Ms. Matsui.

Ms. MATSUI. Thank you, Mr. Chairman. I am very pleased to be here today, and I am glad that this subcommittee is taking a broad look at this issue; from meeting with the Secretary General of the United Nations on international strategies and getting into specifics of helping consumers with our panel today. On that topic, I would like to thank today's panelists. We appreciate your time and expertise on these matters.

I think we all agree that as we craft a comprehensive bill we need to ensure that includes protections for consumers. The way we distribute allowances and who receives them will greatly impact our constituents across this country. That is why I look forward to hearing our panelists' advice on strategies that this committee can use as we draft this bill.

We need to understand how to allocate allowances so that we can effectively reduce our overall emissions. We have a responsibility to ensure that consumers negatively affected by this bill see some relief, and we must also be aware that there are significant costs to our constituents that are associated with inaction.

I hope our witnesses today can help us all understand the role that allocations can play as we craft a climate change bill. This is one of the most important topics we will consider during this entire process, and I am looking forward to today's testimony.

And once again, Mr. Chairman, thank you very much for this hearing. I yield back the balance of my time.

Mr. MARKEY. The gentlelady's time has expired.

The Chair recognizes the gentleman from Louisiana, Mr. Scalise.

Mr. SCALISE. Thank you, Mr. Chairman, and our panel.

As this subcommittee considers climate change legislation, it is critical that we also weigh the effects that climate change legislation will have on American families, especially in these tough economic times. Creating a market for emissions will impose costs to consumers. This is just basic economics.

Peter Orszag, now the President's Budget Director, has verified that energy taxes designed to decrease carbon emissions will be passed onto American families. Estimates show that the average annual household cost will be about $1,300 a year for a tax applied to a 15 percent cut in CO_2 emissions. Mr. Orszag admitted to Congress last year that the price increases borne by consumers are essential to the success of a cap-and-trade program. In fact, he stated, and I quote, "Decreasing emissions would also impose costs on the economy. Most of those costs will be passed along to consumers in the form of higher prices for energy and energy-intensive goods."

While we consider these increased costs for utilities, we must not overlook a very direct impact cap-and-trade legislation will have on American jobs. The National Association of Manufacturers estimates a net loss of three to four million jobs as a result of a cap-and-trade program. Other estimates reach as high as seven million jobs lost in our economy.

And as we know, cap-and-trade will unfairly burden certain regions of our country more than others. In my home State of Louisiana we rely heavily on gas and nuclear for our electricity generation, and under current proposals nuclear is not considered a renewable source of energy, and as we saw here yesterday, Secretary General of the U.N. even acknowledges that he considers nuclear a renewable source of energy.

So, Mr. Chairman, I urge caution as we pursue cap-and-trade legislation that could have a devastating affect on our economy and on American families, especially in these tough economic times. We are all working hard to advance renewable and alternative sources of energy, but it would be unwise for us to pass policies that will only hinder our economic recovery and place further hardships on American families.

I look forward to hearing from our panel today. Thank you, and I yield back.

Mr. MARKEY. OK. The gentleman's time has expired.

The Chair recognizes the gentleman from Washington State, Mr. Inslee.

Mr. INSLEE. Thank you. Just to make a couple points, I really think this hearing could be turned totally on its head about protecting the consumers because it is very clear that even if we did not do anything to help consumers through this process of a cap-and-trade bill, even if we did nothing and we don't intend to do nothing, but even if we intended to do nothing, we would still reduce the damages that consumers will otherwise experience in the next several decades. And the reason is it is very clear that the path of inaction, the path of doing nothing about climate change, which is the path that many of the people in this room still want to pursue unfortunately, we do know that that path will have enormous costs to consumers.

It was the poor folks in Chicago who died in the heat wave a couple of years ago. Those were the people who were packed into the pathology labs were the poor people. It is the people up in the Arctic who today are losing their livelihood. There are Americans today who are losing their ability to feed themselves in the Arctic today because of climate changes. It is the people in the agricultural sector who are picking our fruit and vegetables who are out of work today because of some changes in the climate system.

So even in the absence of any action today to help consumers in the cap-and-trade system, we are preventing more damages those consumers and folks are going to experience in this country. So I don't think the path of inaction is the right one.

Secondly, I just want to say that the one thing I learned in Europe, I went and spent a week there looking at their cap-and-trade system, the biggest mistake they made was giving away all the permits because it was a scandal. They told me do not, whatever you do, don't give away all the permits. You will be politically embarrassed, and the reason is is because those costs then get, without adequate protection, pushed down to the consumer. We don't intend to make that mistake.

Thank you.

Mr. MARKEY. The gentleman's time has expired.

The Chair recognizes the gentleman from Texas, Mr. Gonzalez.

Mr. GONZALEZ. Waive opening.

Mr. MARKEY. The Chair recognizes the gentlelady from Wisconsin, Ms. Baldwin.

Ms. BALDWIN. Thank you, Mr. Chairman. Addressing climate change is truly a consumer protection issue as has been mentioned already. Today we will look into consumer protection policies for climate legislation. We must also keep in mind that by taking steps to address our greenhouse gas emissions we are protecting consumers for generations to come. If we fail to act comprehensively, the impacts will be felt through drastic losses; loss of life, loss of good health, species extinction, loss of ecosystems, and social conflict.

I believe that a federal cap-and-trade system can be developed in a way that balances most of the negative effects on consumers against the need to address climate change threats to our economy, our environment, and our national security.

In particular, we must design a system that minimizes potential negative aspects that many States, like my own midwestern State of Wisconsin, may face due to our significant industrial base and in the case of our State, our heavy reliance on coal for electrical generation. My home State is moving forward on its own goals to reduce our coal dependency and to lower greenhouse gas emissions. Our governor has committed the State to supporting a national economy-wide cap-and-trade program. However, costs must be manageable and how we design this system will determine who pays and how much.

In other words, distribution of allowances and how we apportion the revenue will be key to determining the costs and the consumer impacts. As we take the necessary and bold actions, we must be concerned about the impact of our actions on consumers, which I

believe we can do if we keep in mind the diverse needs across our country and across American households.

I look forward to the witness testimony today, and thank you, Mr. Chairman, for this hearing.

Mr. MARKEY. Thank you. The Chair recognizes that gentleman from North Carolina, Mr. Butterfield.

Mr. BUTTERFIELD. Thank you very much, Mr. Chairman, for convening this very important hearing and especially to the six witnesses in front of me. Thank you for your participation today.

Mr. Chairman, this is perhaps one of the most important hearings that we have had to date. No other issue strikes closer to the central conflict in this bill, that is, the conflict between acting to prevent future climate catastrophic occurrences for future generations and protecting the current generation from bearing an undue burden. The CBO, the Center on Budget and Policy Priorities, Duke Power, have all projected the increased cost of energy to be substantial under a cap-and-trade program. Of families in my district with a child under the age of five, 40 percent. Yes. Forty percent of those live below the poverty line.

Now, when it comes to a necessity like energy, they cannot afford to projected increase. I sat down with my staff last night and we worked up a sample budget for a single mom with two dependents and making $8 an hour, and it just won't fit. These people are hurting, and they cannot absorb the increase in the cost of electricity.

To that end I support disbursement of considerable auction revenue to be returned to low and middle-income households to offset the cost of our policy. The Chairman's bill last year took a promising approach to meeting this need by committing to completely offset energy cost increases for two-thirds of all U.S. households.

Further, the CBPP has made extensive proposals to deal with this issue, and I eagerly anticipate Mr. Greenstein's testimony. Maintaining an approach that holds at least guilty consumers harmless in our policy is absolutely imperative. The problem offers us an opportunity, Mr. Chairman, to think creatively, employing a variety of techniques, from rebates to energy efficiency to mitigate the cost and make this thing work.

Now, Mr. Chairman, I am certainly not alone in this view. They have been expressed by many others. I have a letter with me today from the National Rural Electric Cooperative Association that I ask unanimous consent to include in the record today.

Mr. MARKEY. Without objection it will be included.

[The information was unavailable at the time of printing.]

Mr. BUTTERFIELD. With that, Mr. Chairman, I yield back.

Mr. MARKEY. Great. The gentleman's time has expired.

The Chair recognizes the gentleman from Texas, Mr. Green.

OPENING STATEMENT OF HON. GENE GREEN

Mr. GREEN. Thank you, Mr. Chairman. I know my colleague from North Carolina was talking about Greenstein, Mr. Green Jeans, I have been called that a couple times, and I used to say it added about ten points to my name ID because that as a childhood—some of us watched Captain Kangaroo.

I want to thank the Chairman for particularly including this in our series of hearings on consumer protection policy and climate legislation. While several of our subcommittee hearings thus far focused on efforts to protect our environment, I am pleased today to hear focus on equal-important policy objectives that protect the U.S. consumer under any climate legislation. If we don't do that, no matter what else we try to do, it will not work, because the people in our country will respond. Those of us who to support some reasonable control, if we don't control the cost to the consumer, it is kind of like Social Security. I tell people, don't worry about Social Security. There will be a new Congress if we change Social Security to your detriment. And I think this could happen with us.

I represent a predominantly blue-collar, low-income district where employees must work long hours and oftentimes double shifts just to make ends meet, and it is an energy-producing district. It is the east end of Houston, Texas, Harris County, where we have petrochemical complexes, and we still produce natural gas and oil in our district. But I am also proud to have the largest biofuel refinery in the country.

With family budgets already stretched thin, any additional increase in electricity, natural gas, or gasoline bills as a result of climate legislation will necessitate tough family choices between whether to pay bills, put food on the table, or to purchase much-needed medication. Low-income households already spend more than five times their household income on energy than high-income households and less likely to be able to afford home weatherization services or to purchase more-efficient appliances.

And our climate change policy leads to—if our climate change policy leads to energy supply disruption and price spikes without effective remediation, consumers and voters will begin to question that policy. Perhaps one of the most important design elements with any cap-and-trade addressing the price impacts to the consumers is allocation of emission allowances and the distribution of auction allowance proceeds. As evidenced in the President's budget proposal, auction allowances have the ability to generate over half a trillion dollars to the Federal Government in less than 10 years alone. There will be huge demands for these funds, and consumers need more than the government's promise that they will receive future assistance to dampen the cost impacts of climate legislation.

In the power sector there is a growing consensus to allocate allowances to the local distribution companies or LDCs, which are required by law to act in the public interest and pass through allocation benefits to consumers. This proposal has merit and must be further flushed out to ensure utilities have the infrastructure in place to accurately collect consumer data that can target all needy consumers in the LCD allocation distribution but not disadvantage LDCs that serve low-income families with lower-per-capita energy consumption.

Mr. Chairman, I know I am out of time, so I appreciate your patience today.

[The prepared statement of Mr. Green follows:]

Congressman Gene Green
Energy and Environment Subcommittee Hearing
"Consumer Protection Policies in Climate Legislation"
March 12, 2008

Mr. Chairman, while several of our subcommittee's hearings have thus far focused on efforts to protect our environment, I am pleased today's hearing focuses on an equally important policy objective: to protect the U.S. consumer under any climate legislation.

I represent a predominately blue-collar, low-income district where employees must work long hours or double shifts to make ends meet.

With family budgets already stretched thin, any additional increase in electricity, natural gas, or gasoline bills as a result of climate legislation will necessitate tough family choices between whether to pay bills, put food on the table, or to purchase much-needed medication.

Low-income households already spend more than five times their household income on energy than high-income households, and are less likely to be able to afford home weatherization services or to purchase more energy-efficient appliances.

If our climate policy leads to energy supply disruptions and price spikes -- without effect remediation -- consumers and voters will begin to question that policy.

Perhaps one of the most important design elements within a cap and trade program to address the price impacts on consumers is the allocation of emission allowances and the distribution of auctioned allowance proceeds.

As evidenced in the President's budget proposal, auctioned allowances have the ability to generate over half a trillion dollars to the federal government in less than 10 years alone.

There will be huge demands for these funds, and consumers need more than a government's promise that they will receive future assistance to dampen the cost impacts of climate legislation.

In the power sector, there is growing consensus to allocate allowances to Local Distribution Companies -- or LDC's -- which are required by law to act in the public's interest and pass through allocation benefits to consumers.

This proposal has merit and must be further fleshed out to ensure utilities have the infrastructure in place to accurately collect consumer income data and can target all needy consumers.

Any LDC allocation distribution formula must not disadvantage LDC's that serve low-income families with lower per-capita energy consumption.

We must also have policies in place – through rebates, allocations, or the tax code -- to address the higher cost of gasoline, food and other energy-intensive products.

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

Mr. MARKEY. The gentleman's time has expired.

The Chair recognizes the gentleman from Illinois, Mr. Shimkus.

Mr. SHIMKUS. Thank you, Mr. Chairman. I see we have no cameras again today.

Mr. MARKEY. May I say, and we will just hold the time here that I already had this conversation with Mr. Barton, and we did make the request for these, for the, that portable equipment here, and I expected it to be here today, but we were told this morning that Armed Services and the Oversight Committee at full committee, there is only two of these portable systems that they have, and that they were having the hearings in their full committee rooms, and we could not, unfortunately, persuade them to move them over here.

But that was my——

Mr. SHIMKUS. No. I understand. I just——

Mr. MARKEY [continuing]. Expectation this morning.

Mr. SHIMKUS. Yes. And I understand, and I appreciate your effort. I just say if the world is coming to the end because of climate change, that this probably should take precedence over the military hearing or the oversight hearing. If the world is ending, the public ought to know about it. And I think we are, you know, it begs the question of how important these hearings are if we are not willing to televise them.

We are on Universal Service Fund downstairs. It is an important issue to my district. I think if the world is ending, this is even more important that the Universal Service Fund. So I am going to continue to, as you would expect, to belabor the point.

Mr. MARKEY. And by the way, it is a point worth belaboring. OK. This is not something that I understand exactly why House, the House can't fix these cameras. OK. I don't understand it, and I don't understand how the House Armed Service Committee and House Oversight Committee doesn't have rooms that have a camera in them. I don't——

Mr. INSLEE. Mr. Chairman.

Mr. MARKEY. Yes.

Mr. INSLEE. I just want to report that my constituents, they do believe the world is ending in not being able to see John Shimkus. Believe me. This is a perception that is shared widely in my district. I just wanted to——

Mr. MARKEY. I am going to work very hard to solve this problem, but, believe me, I have learned more about the operations of cameras in committee rooms in the last 1 week since your point has been made, very validly, by the way.

Mr. SHIMKUS. About the only thing I can get done in this Congress, Mr. Chairman.

Mr. MARKEY. That is not so. That is absolutely not so.

Mr. SHIMKUS. But, thank you.

I have talked about the job loss issue. Kincaid, Illinois, 1,200 mines because of the 90 amendments. Last hearing I had, I talked about 14,000 mine workers just in southern Illinois losing their jobs. It is great we got the Ohio Coal Association here, and in his testimony on—I will just read it. "In the 15 years following the 1990, passage of the Clean Air Act, which imposed drastic reductions in coal production, Ohio lost nearly 120 mines, costing more

than 36,000 primary and secondary jobs. These impacted areas of my State, the State of Ohio, that have spent years recovering and some never will," and sir, that is southern Illinois. Exactly the same.

And the more and more we learn about climate change and cap-and-trade, the more you find out that, what this is all about. This is about a simple premise of monetizing carbon, and what it will do, it will pay people not to manufacture. If you have a coal-powered plant, and you have credit, and there is a trading floor, you can shut that power plant off and make money. Simply put. And whose money is it? It is the rate payers' money. It is taxes. It is earning income that is going to go away. This is probably the number one biggest distribution of wealth plan that this country has ever seen, and that is why these things have to be covered, televised. And that is why some of us are skeptical that the truth is being inhibited from being told to the public.

One hundred percent option will pay people to stop generating electricity. Well, pay them. That is not a policy that we want. It deprives us of our economic livelihood. It distributes wealth around the world. It is bad policy. We are going to fight it.

Mr. MARKEY. I thank the gentleman.

And I would just make this note. When we are talking about televising, we are talking about televising on the internal House system so that members and staffs in their offices can see this subcommittee hearing. We are not talking about C–Span.

Mr. SHIMKUS. No. Would the gentleman yield?

Mr. MARKEY. I will just finish the point. What C–Span has to decide on a daily basis as an editorial decision is which committee hearings they are going to actually put on C–Span. And so this hearing right now would be competing with about another 30 hearings on the House and Senate side as to whether or not they would actually broadcast it on C–Span.

So what we are talking about principally here is that other offices can see this hearing rather than——

Mr. SHIMKUS. No. That is—Mr. Chairman, if the Chairman would yield, that is not directly true. We, this also could be streamed online right now.

Mr. MARKEY. But that is not accurate.

Mr. SHIMKUS. And the other thing is C–Span will air hearings throughout the weekend and not in real time. So I understand your point.

Mr. MARKEY. I understand.

Mr. SHIMKUS. If the firm doesn't think we are going down the wrong path——

Mr. MARKEY. No. I agree with—again, I agree with you. I agree with you, and this audio stream is going out, and there are print press here that are reporting what happens here, but I agree with you 100 percent. I wish that this was being televised.

Let me now turn and recognize the gentleman from Vermont, Mr. Welch.

Mr. WELCH. Thank you, Mr. Chairman. I will waive my opening statement.

Mr. MARKEY. The Chair recognizes the gentleman from Texas, Mr. Burgess.

Mr. BURGESS. Thank you, Mr. Chairman, and I appreciate you having this hearing, and I know you are working as hard as you can to get the television cameras turned back on.

We have to face the stark reality that the United States as a Nation is getting older, and we may be looking at a time in the not too distant future where those who could least afford to pay for more, more for their energy needs are exactly those who are going to be affected under a cap-and-trade regimen.

Last August the United States Census Bureau reported that today 40 percent of the United States' population is over the age of 45, and according to their projections 43 percent will be over the age of 45 in 2025. In addition, we have a shrinking population under the age of 18, so we are talking about a large majority of our population who are either past their peak earning years so it will be more difficult for them to pay higher energy costs or will be living on a fixed income. People on a fixed income cannot afford increases in their monthly energy bills. In fact, it is the antithesis of a compassionate society that charges more for energy for those who can least afford it.

Even more troubling is the realization that every worker who retires is not replaced with another equal-wage earner. So when you look at these numbers you begin to see that we are looking at a potentially very troubled scenario in the earning situation in America's future, which will be directly impacted by high costs for energy.

People take less flights, drive less, buy smaller houses, use less energy, all that may be to the good, but if the goal of cap-and-trade is to reduce the use of energy, then maybe it is not the best strategy. Based upon these projections from the United States Census Bureau, in 2025, the majority of our population is not going to be able to afford the amount of energy they use today, even without a new tax through cap-and-trade.

So, Mr. Chairman, I am anxious to hear from our witnesses today about how we can protect consumers from increased energy costs and as a result of what we are going to do in this committee with our cap-and-tax regimen.

With that I will yield back my time.

Mr. MARKEY. Great. The gentleman's time has expired. The Chair recognizes the gentleman from Texas, Mr. Hall.

Mr. HALL. Mr. Chairman, thank you. I will be very brief, and I don't know what has been testified to. I have seen some of the testimony, but I just make the simple statement that any cap-and-tax or cap-and-energy tax and scheme is going to create a regulatory nightmare that we can't live with. But we know that, Mr. Chairman, and I admire you and respect you and you know it, and you have numbers on us, and you are going to pass whatever you hand out over there.

I think I have quoted this to you before back through the 28 years we have been sitting together here, said the young madam of Siam to her lover, young Kiam, "If you kiss me, of course, you got to use force, but God knows you are stronger than I am." So you are going to pass it, but I just urge you to be as kind and gentle with the taxpaying public as you can.

I yield back my time.

Mr. MARKEY. Honestly, Ralph, I see this as something—my goal is like the Telecommunications Act of 1996, that wound up at 423 to three, that ultimately we should all work it out, and it should be us in Boston as it always is and——

Mr. HALL. Were one of the three?

Mr. MARKEY. I can tell you who those three were, and it is a good story. Each one was a good story.

Mr. HALL. OK. I will still yield back my time.

Mr. MARKEY. Great. The gentleman's time has expired.

The Chair does not see any other members seeking recognition at this time. So we will turn to our very distinguished panel, and we will ask our first witness, Mr. Steven Kline, to begin testifying.

Steve is the Vice-President of Corporate Environmental and Federal Affairs for the Pacific Gas and Electric Corporation. PG&E Corporation is an energy-based holding company based in San Francisco. He has worked extensively on all of these issues. We welcome you, sir.

STATEMENTS OF STEVE KLINE, VICE-PRESIDENT OF CORPORATE ENVIRONMENTAL AND FEDERAL AFFAIRS, PACIFIC GAS AND ELECTRIC CORPORATION; SONNY POPOWSKY, CONSUMER ADVOCATE OF PENNSYLVANIA, PENNSYLVANIA OFFICE OF THE CONSUMER ADVOCATE; ROBERT GREENSTEIN, EXECUTIVE DIRECTOR, CENTER ON BUDGET POLICIES AND PRIORITIES; STEVEN F. HAYWARD, AMERICAN ENTERPRISE INSTITUTE; MIKE CAREY, OHIO COAL ASSOCIATION; AND JOHN S. HILL, DIRECTOR FOR ECONOMIC AND ENVIRONMENTAL JUSTICE, UNITED METHODIST CHURCH, GENERAL BOARD OF CHURCH AND SOCIETY

STATEMENT OF STEVE KLINE

Mr. KLINE. Good morning, Chairman——

Mr. MARKEY. If you could move that microphone in a little bit closer.

Mr. KLINE. Certainly. Is that better?

Mr. MARKEY. Yes. Please.

Mr. KLINE. Ranking Member Upton, and members of the committee. Thank you for the opportunity to be before you today. PG&E is one of the Nation's——

Mr. MARKEY. Move it in just a little bit closer.

Mr. KLINE. PG&E is one of the Nation's largest utilities and has long been working on clean energy, energy efficiency, and the effort to address climate change. We strongly support comprehensive climate change legislation. In our view the best solution is a well-designed, economy-wide, market-based cap-and-trade program.

In my written testimony I have defined well-designed by detailing certain basic building blocks as the foundation for any cap-and-trade effort. But also to state that even with the best design consumer protections are going to be critical. For electricity and natural gas consumers one of the most effective, efficient, and transparent ways to accomplish this is by directing allowance value to regulated local distribution companies or LDCs where it can be put to the benefit of consumers. In fact, LDCs are virtually tailor made for this role. They are closest to the end-user consumer, they understand better than anyone how to work with individual cus-

tomers in their area, and in many cases, like PG&E, they already run existing initiatives like energy efficiency, low-income programs, and others which can serve as the infrastructure for delivering value back to customers.

Most importantly, LDCs operate under the direct oversight of State utility commissions or other governing boards. This provides the means to assure that the value of the allowances is returned to consumers in a timely, targeted, and transparent manner that overall advances the objectives of the National Climate Program.

There are important built-in advantages that lend themselves ideally to this task at hand, and we believe Congress can take full advantage of them. In order to do that, we recommend the following framework.

Allowances should be allocated to LDCs. LDCs would then sell the allowances and use the proceeds to buffer consumer impacts in a way that doesn't undermine the incentive to reduce their usage and hence emissions. Congress should set guidelines for using allowance value, require timely and transparent reporting on how to allocate, and how the value is used.

Allowance value provided to LDCs for consumer benefits should obviously fall under the guidance of State public utilities commissions. LDCs should be required to invest the revenue from selling allowances solely to benefit consumers. This includes investing in programs to assist low and moderate-income consumers, small businesses, as well as to advance energy efficiency and reduce demand.

This point is critical. Energy efficiency and demand reduction are two of the best ways to sustainably contain costs for consumers and do it in a manner that improves their comfort and standard of living. In fact, many States have comprehensive energy efficiency programs that save customers $2 to $4 for every dollar invested. These programs also create significant new energy service jobs and through increased efficiency drive broad economic growth.

We are convinced that if one of the goals of a national program is increasing energy efficiency and lowering demand, that no better mechanism exists than directing allowance value through LDCs, and leveraging the established relationships between LDCs and their customers provides the best opportunity for success. It is worth noting that PG&E is not alone in supporting LDC allocations. Others include the NARLC, National Association of Regulatory Utility Commissioners, the Natural Defense—I am sorry. Natural Resources Defense Council, Environmental Defense Fund, the National Commission on Energy Policy, U.S. Climate Action Partnership or U.S. CAP, the Clean Energy Group, the Edison Electric Institute, the American Gas Association, and the American Public Gas Association. These are submitted as attachments to my prepared testimony.

In closing, let me say that our country has a historic opportunity to change the way we produce and use energy, producing huge environmental and economic benefits, but this is a long journey. It has to be sustainable over time, and that means we have to take careful steps at the outset to assist consumers along the way. We believe LDC allocations are one way to do that. Thank you.

[The prepared statement of Mr. Kline follows:]

Testimony of Steven L. Kline
Vice President, Corporate Environmental and Federal Affairs
PG&E Corporation

Before the

Subcommittee on Energy and Environment
of Energy and Commerce Committee of
United States House of Representatives

on

Consumer Protection Provisions in Climate Legislation

March 12, 2009

Chairman Markey, Ranking Member Upton, and Members of the Committee, I am honored to appear before you this morning to provide PG&E's views on the critically important topic of consumer protection under a climate change regime. I am pleased that this Committee is showing leadership on this very important topic by having a dedicated hearing that will advance the legislative process.

PG&E Corporation is an energy holding company headquartered in San Francisco, California and the parent company of Pacific Gas and Electric Company. Pacific Gas and Electric Company (PG&E) is California's largest utility, providing electric and natural gas service to more than 15 million people throughout northern and central California. PG&E is a recognized leader in energy efficiency and has among the cleanest mix of electric power of any utility in the country.

Our work on energy efficiency, including wide deployment of smart meters, and support of clean generating technologies are part of a broad portfolio designed to provide

advanced energy solutions to our customers. Through technology and innovation, we meet the energy needs of our customers, including residential, commercial and industrial, and provide to meet their energy needs, while providing unique opportunities for them to manage their energy use, reduce costs, promote new technologies and address climate change.

PG&E has been a leading advocate for comprehensive climate change legislation for more than a decade. As a member of the Clean Energy Group, the Business Council for Sustainable Energy, and founding member of the United States Climate Action Partnership (USCAP), PG&E has played a constructive leadership role within the utility industry and across many sectors to develop critically important policy design aimed at bringing climate change legislation to enactment as quickly as possible. Specifically, the USCAP Blueprint for Legislative Action, released in January 2009, establishes a detailed framework for climate change legislation that recognizes the paramount need for consumer protection and provides detailed policy design to ensure such safeguards.

PG&E supports a well designed economy wide, market based cap-and-trade program and along with supporting complementary programs as the best policy solution to address climate change. The design of this policy should focus on environmental certainty and the enabling factors that will help the transition to a low-carbon economy. Critical policy components must include:

- Targets and Timetables: Specific greenhouse gas (GHG) reduction requirements by a date certain will provide clear goals with environmental

certainty and ensure the price signal on carbon necessary to drive technology innovation and investment necessary to transition to a low-carbon economy.

- Scope of Coverage: Clear indication of what GHG emissions must be reduced and where in the economy to ensure that a regulatory compliance obligation will be placed at the appropriate point while balancing political and administrative feasibility.
- Cost Containment: The cap-and-trade program should include measures to protect the economy while allowing a long-term price signal that is sufficient to drive investment toward a low-carbon economy. Features to manage program costs, limit carbon price spikes and volatility, and provide long-term investment confidence should include offsets and a strategic offset and allowance reserve or, for example, price collar mechanism.
- Allocation of Allowance Value: Allowance value should be used to advance the overall objectives of the climate protection program. Legislation should provide direction for where and for what purpose allowance value will be distributed to ease the transition to a low-carbon economy, the identification and mitigation of the financial or physical requirement faced by consumers and business, and critical adaptation to the impacts of global warming.
- Incentives for Technology Development and Deployment: Funding to hasten the deployment of existing zero and low-carbon generation technologies and promote early demonstration and deployment of new breakthrough innovations that will facilitate the transformation to a low-carbon economy.

- Complimentary Policies: Supplemental policies that address emissions reductions in both the transportation sector, through, for example, fuel and vehicle performance standards, as well as encourage the adoption of energy efficiency practices in all aspects of the economy in buildings, products, and processes and also to help transform the nation's coal fleet.

Even well designed climate change legislation inclusive of the components outlined above will lead to increased energy costs as the price of carbon is passed downstream through the economy to end-users. Therefore, designing specific provisions aimed at consumer protection are essential to the long-term viability of a climate program.

We believe there are two important principles to guide inclusion of consumer protection measures into an economy wide, market-based cap-and-trade climate program. The first principle is that no single solution should nor could handle all necessary cost mitigation for consumers. The second principle is that consumer protection should be designed in a manner that is consistent with the overall goals of a climate program, specifically environmental certainty and the transformation to a low-carbon economy.

For example, we believe that adequately investing in energy efficiency, demand reduction and other programs to help low- and moderate income, small business consumers, and other vulnerable customer populations, is essential to the design of a cap-and-trade program.

For electric and natural gas consumers, we think one of the most effective, efficient and transparent ways of addressing this issue is through a carefully designed distribution of allowance value to regulated electric and natural gas local distribution companies (LDCs) on behalf of their customers and for their benefit.

Recent legislative proposals have allocated allowances to electric and natural gas LDCs for consumer benefit, recognizing that electric and natural gas LDCs are well positioned to implement programs that help customers manage their bills, and do so in a way that meets the unique needs of the communities they serve. LDCs have established relationships with each end-use customer and experience helping customers manage their energy bills. They also operate under the direct oversight of state utility commissions or governing boards. This regulatory oversight coupled with appropriate federal direction in the use of allowance value will allow Congress to ensure that the value of the allowances will be returned to consumers in a timely, targeted, and transparent manner and be used to advance the overall objectives of the climate program. Additionally, many LDCs already have existing energy efficiency and low-income energy assistance programs, many of which deliver benefits to consumers in ways that engage community-based organizations ensuring that targeted populations are receiving the assistance they need. In fact, through an approach such as this, Congress can ensure that every utility in the country has in place well designed, well functioning programs to address the needs of vulnerable populations in their communities and provide energy efficiency and demand reduction programs to all their customers.

Accordingly, we support an allocation of allowances to electric and natural gas LDCs as trustees for consumers under the following framework:

- Allowances should be allocated to LDCs. LDCs would then sell allowances and use the proceeds to buffer the economic impacts on electric and natural consumers without undermining their incentive to reduce emissions.

- Guidelines should be established by Congress to direct the use of allowance value and to require that LDCs develop plans for and provide timely and transparent reports on the use of allowance value.

- Allowance value provided to LDCs for consumer benefit should fall under the oversight of the utility regulator in the state, generally the public utility commission, or the governing board in the case of publicly-owned utilities.

- LDCs should be required to invest the revenue created by the sale of allowances solely for customer benefit, including, for example, programs to dampen or mitigate the impact to the bills of low- and moderate-income consumers (e.g., bill assistance, weatherization, etc.) and small business, and programs and actions to advance energy efficiency and demand reduction, and on-site renewable generation which will provide sustainable energy and cost savings.

While we recognize there are multiple ways to return allowance value back to consumers, we believe that directing value through LDCs is the most efficient way to increase energy efficiency program and demand reduction investments, which represents two of

the best ways to sustainably contain costs for consumers and reduce demand for electricity and natural gas. In fact, many U.S. states have comprehensive energy efficiency programs for electric and natural gas customers that deliver customer savings of $2 to 4 dollars for every dollar invested. These programs lead to significant new energy service jobs and broad economic growth. That said, we also recognize that there are significant market and regulatory barriers to realizing the full potential of energy efficiency. Without establishing and implementing well designed programs that assist consumers in making the right investment choices, the nation will not realize these savings and achieving emission reduction targets will be more costly. The established relationships that the LDCs enjoy with their customer provide the optimal distribution network for energy efficiency program dissemination.

In California, for example, the California Energy Commission has determined that for every $1 invested in energy efficiency, all customers received $2 of benefit regardless of whether or not they participate in any of our programs. This focus on energy efficiency has helped to keep bills for our customers at or below the national average. For example, according to the Edison Electric Institute, the average residential customer in the U.S. paid $98/month in 2007, compared to $74/month for PG&E (as of March 1st).

And PG&E is not alone in supporting LDC allocations as a credible and necessary consumer protection measure in a cap-and-trade program. For example, the following major organizations have shown support for this approach: the National Association of

Regulatory Utility Commissioners, American Gas Association, American Public Gas Association, United States Climate Action Partnership, Clean Energy Group, Edison Electric Institute, American Council for an Energy Efficient Economy, Natural Resources Defense Council, Environmental Defense Fund and the National Commission on Energy Policy. (Please see attached documents.).

In fact, our industry, and those that regulate it, both agree that LDC allocations are a fair and equitable means of ensuring that consumers at the end of the supply chain receive the value associated with allowances. This is because no matter where the point of regulation is placed, this is because most of the program will flow through to end use customers. That is why our industry and our regulators support an approach that directs allowance value to these consumers and allows for flexibility to meet the unique needs and circumstances of the communities and customers we serve. According to Professor Andrew Keeler at the Ohio State University from a study prepared for the National Association of Regulatory Utility Commissions (January 2008), "Commissions will not be able to influence the rates paid for electricity produced under market pricing when generation owners receive allowances at no cost. If allowances are instead allocated to [local distribution companies] in their role as entities obligated to physically provide electricity to end use loads, commissions will be able to treat symmetrically electricity produced under embedded cost ratemaking and market pricing." By providing allowances to the regulated LDCs, Congress can ensure that the value is passed trough to consumers and that the distribution of allowances will no create undue or "windfall" gains for private firms.

Electric and natural gas local distribution companies touch almost every household and business in America. LDCs are regulated entities that have an obligation to serve and whose rates and costs are regulated by public utility commissions or governing boards. LDCs are in every community, both in terms of their assets and employees. They recognize the unique needs and circumstances of those communities and understand the mechanisms for how to reach customers effectively and efficiently. For example, one of PG&E's longest-standing financial assistance programs is California Alternate Rates for Energy (CARE), which provides a 20 percent monthly discount on the bills of qualifying low- or fixed-income customers. In 2008, more than 1.1 million customers were enrolled in the program, which represents approximately 73 percent of eligible participants. We are working to reach a goal of 90 percent by 2011 through increased outreach and new partnerships with community organizations and advocates who serve low-income customers throughout northern and central California.

In addition, PG&E's Energy Partners program, administered by approved contractors, is another key program—helping eligible low-income households with free weatherization to make their homes more energy efficient by installing attic insulation and weather stripping for doors, making minor repairs such as fixing broken windows and patching walls and performing safety inspections of selected appliances. Through this program, we treated 61,000 homes in 2008— over 457,000 since 2001, and plan for significant future growth, including a target of 90,000 homes for 2009 and more than 125,000 by 2011.

We also recognize that consumers of other fuels with be affected, such as those that use home heating oil and propone, and transportation fuel consumers. Because there is no analogous entity such as a regulated LDC in these sectors, allowance value will need to be directed to states and through other mechanisms to help mitigate cost increases for these fuels, and related products. We support the inclusion of provisions that will provide states and other entities with the resources they need to help ensure a smooth transition for all consumers. We do not view the issue of how to mitigate all consumers' energy costs as an "either-or" proposition. Instead, we believe Congress should take advantage of the various effective and targeted delivery mechanisms available to help ensure that all energy consumers are helped in a timely, transparent, and targeted manner. Most importantly, Congress should utilize mechanisms that achieve the broader objectives of the climate protection program and invest in a more energy efficient future for our nation.

Our country has an historic opportunity to change the way we produce and use energy in ways that will lower the threat of climate change, improve our environment and transform our economy. Critical to the success of transformative climate change policy is ensuring the longevity of the program, and this is best ensured by thoughtful and targeted consumer protection programs. At PG&E, we believe the framework laid out in this testimony for LDC allowance allocation on behalf of electric and natural gas customers is a critical component to the success and sustainability of this vitally important legislation.

On behalf of PG&E, I want to thank you for the opportunity provided today.

EDISON ELECTRIC INSTITUTE

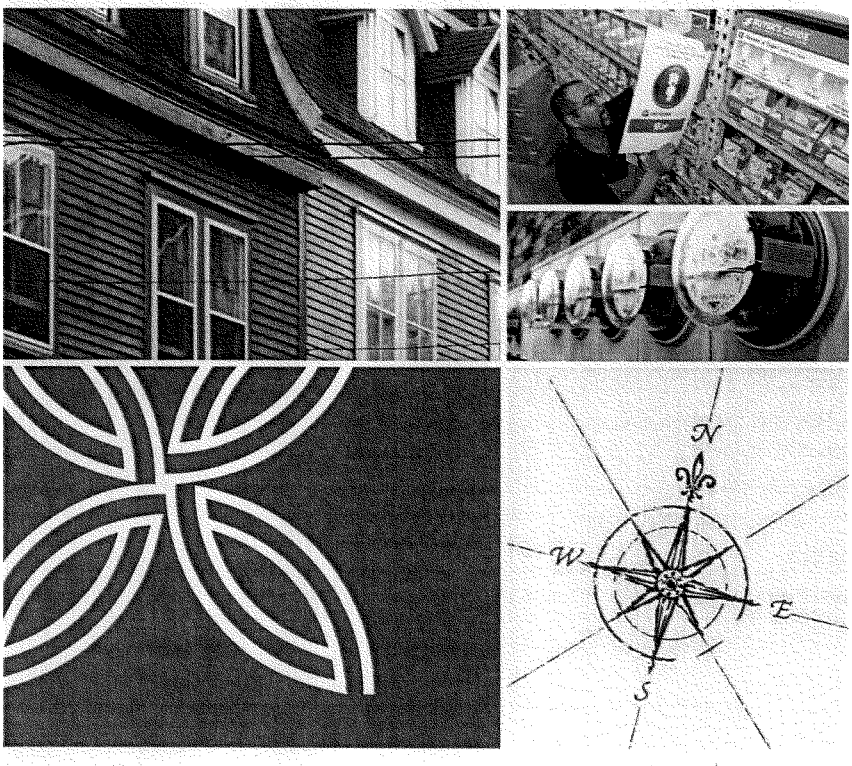
January 14, 2009

EEI Global Climate Change Points of Agreement

- EEI remains committed to working with Congress on enactment of legislation that will produce substantial emissions cuts and mitigate impacts to customers.
- EEI will focus its efforts on a cap-and-trade program, but also remain open to a tax-based or hybrid approach in the event the political environment shifts.
- Consistent with EEI's support for economy-wide programs, there should be no exemptions for any industry or specific fuel.
- EEI will aggressively pursue legislative and regulatory policies in support of climate-friendly technologies.
    - Efficiency and renewables are key to near-term reductions.
    - Maximizing new nuclear is key to mid-to-longer term reductions.
    - The aggressive development and deployment of carbon capture and storage coupled with advanced coal technologies are necessary to preserving the coal option.
    - Plug-in hybrid electric vehicles (PHEVs) and electric vehicles (EVs) can make a major contribution to reducing net GHG emissions, as well as to reducing foreign oil dependence and consumer prices at the pump.
    - Other no and low-emitting carbon technologies should be pursued (*e.g.*, smart grid).
    - Support key concepts underlying the Boucher CCS bill.
- Long-term targets (*e.g.*, 2050) should be set at an 80% reduction below current levels.
- Interim targets should be aligned with technology availability.
    - Near-term targets should be set and driven by efforts on energy efficiency, renewable energy, and, to some extent, new nuclear.
    - Medium-term targets should be set in the 10 – 20 year timeframe after enactment to match up with and enable technology development (*e.g.*, new nuclear, CCS, *etc.*).

- Cost-containment provisions should include a price collar, which would include a firm price floor and firm price ceiling. The collar should be based on the following principles:
    - Start narrow and gradually expand over time as technologies become available.
    - Simplicity of administration and transparency on use of revenue (which should include funding technology development and limiting economic impacts).
    - Formulaic (*i.e.*, easy to determine price for any point in time).
- Offsets also are an important cost containment mechanism that should be allowed to the maximum extent practical, subject to monitoring, measurement, appropriate third-party verification and regulatory oversight.
- State climate policies should be harmonized with federal climate policy, and states can pursue related programs (*e.g.*, energy efficiency programs, renewable portfolio standards, *etc.*). There should not be multiple cap-and-trade programs for GHG reductions.
- There also should be harmonization at the federal level. A single comprehensive federal climate law, rather than a regulatory regime consisting of multiple, overlapping or conflicting statutes, is called for.
- Under a federal GHG cap-and-trade program, allowances should be transferred to the power sector from the oil and gas sector as the market share of PHEVs and EVs increases.
- The best way to mitigate impacts on customers is to flow-through the benefits of allowances to customers. This can best be achieved by having allowances for regulated utilities allocated at the LDC level—a process that would be overseen by the state utility regulators—with appropriate adjustment to address impacts on unregulated generators.
    - Allowances should be allocated in the early years of a climate program, with a gradual transition to a full auction.
    - The initial allocation to the electric power sector should be consistent with its level of CO_2 emissions (*i.e.*, 40%).
    - Sector allowances should be allocated as follows: merchant coal generation would receive allowances equal to 50% of base-year emissions (because it is assumed both that the other 50% is recovered by gas being on the margin in competitive markets and that gas has, on average, 50% of the carbon content of coal), with the balance of allowances allocated to LDCs based on an even split between base-year emissions (including emissions associated with purchased power) and retail sales. This approach is referred to as the "50-50-50" proposal.

State & Utility Administered
Energy Efficiency Programs
Experience, Opportunities and Examples



M.J. Bradley & Associates LLC
A Climate Change Capital Group Company

ENE
Environment Northeast

February 2009

Acknowledgements

This report was developed by Environment Northeast (ENE) and M.J. Bradley & Associates LLC with input from participating efficiency program administrators.

ENE is a non-profit organization that researches and advocates innovative policies that tackle our environmental challenges while promoting sustainable economies. ENE is at the forefront of state and regional efforts to combat global warming with solutions that promote clean energy, clean air and healthy forests.

M.J. Bradley & Associates assists private industry, nonprofit organizations, and government agencies in the strategic assessment of environmental and energy policies, programs, and technologies. We strive to help clients achieve responsible environmental goals consistent with their strategic and business objectives. Our team has extensive experience in energy markets, environmental policy, law, engineering, economics and business.

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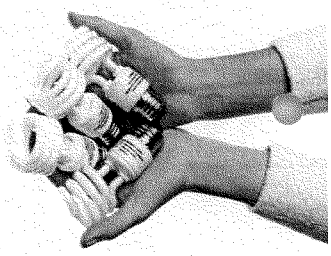


Thanks

Special thanks to the program administrators and case study participants for their willingness to participate in the development of this report and for their efforts to promote an energy efficient economy.

Austin Energy

Efficiency Vermont

Energizer

National Grid

Pacific Gas & Electric Company

Princeton Properties

Seattle City Light

Stella Color

Background

State and utility administered energy efficiency programs are saving Americans billions of dollars each year by reducing energy consumption at a fraction of the cost of conventional energy supplies. At the same time, these programs are providing improved services—such as light, warm houses and cold beverages—that enrich our daily lives.

Energy efficiency programs provide additional benefits to society as a whole. Efficiency investments create high quality green jobs and energy bill savings that flow back into the economy to stimulate additional job creation on a broader scale. Efficiency programs lower energy costs for all consumers by reducing total energy demand, which in turn limits greenhouse gas emissions—making climate goals more achievable and affordable in the future.

This report is intended as an educational tool for policy makers on state and utility administered energy efficiency programs. The report profiles a diverse cross-section of leading programs that have been established throughout the country by different types of program administrators.

Current U.S. Efficiency vs. Supply Spending for Electric and Natural Gas Customers

Energy efficiency measures are often cheaper than efforts to increase energy supply. Americans spend about $215 billion annually on the production of electricity, at a price of 6 to 12 cents per kilowatt hour (kWh). However, we invest only $2.6 billion in securing electricity savings through energy efficiency programs, a resource that can cost as little as 3 cents per kWh saved. For natural gas the picture is even more imbalanced. Natural gas efficiency costs $1 to $2 per thousand cubic feet (Mcf) saved compared with $6 to $8 per Mcf supplied. We have a choice between low-cost efficiency and high-cost supply—yet more often than not we invest in the more expensive alternative.

Many states have recognized the benefits of efficiency investments and have created or expanded their energy efficiency programs. Data gathered by the Consortium for Energy Efficiency (CEE) show that 2008 energy efficiency investments topped $3.13 billion nationwide, a 30 percent increase from the prior year.[1] In 2009 these ratepayer-funded investments will be augmented by hundreds of millions of dollars raised in auctions of CO_2 emission allowances in the nation's first greenhouse gas cap-and-trade program, the Regional Greenhouse Gas Initiative (RGGI) among Northeast and Mid-Atlantic states. RGGI member states determined that state and utility administered energy efficiency programs provided significant public benefit, and will therefore direct the vast majority of revenue to efficiency investments.

[1] See www.cee1.org for national energy efficiency spending levels.

Existing State-level Efficiency Programs

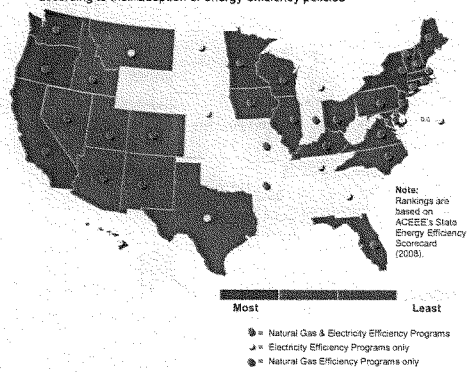
In 2008, electric and natural gas efficiency programs were up and running in 38 states and the District of Columbia. Program focus and level of investment varies across states, but it is clear that a growing commitment to energy efficiency nationwide has created the political momentum and practical mechanisms to increase federal support for efficiency.

Energy Savings Opportunity

Despite recent increases in energy efficiency investments, significant additional funding is needed to realize the vast opportunity to use energy more efficiently. An illustrative example is provided by Connecticut, where a utility plan recommends spending approximately $71 per capita to capture all cost-effective efficiency in the electric sector. The country as a whole would need to increase its electric energy efficiency spending to $22 billion annually to achieve the levels proposed by the Connecticut proposal. This would be a dramatic increase over current spending levels of just $3.13 billion for electric efficiency. For natural gas and fuel oil a funding increase on the order of $10 billion annually would be needed.

State Energy Efficiency Programs

The American Council for an Energy-Efficient Economy ranks states according to their adoption of energy-efficiency policies



Planned Spending Increases

Connecticut is not alone in examining increased investments in energy efficiency spending as a solution to escalating energy prices. Rhode Island has expanded efficiency programs to natural gas, and is well on the way to tripling its electric programs over 3 years. Massachusetts will require utilities to procure all cost-effective efficiency that is cheaper than supply, many states have passed new energy efficiency resource standards that require higher levels of energy savings over time, and Maine, New Hampshire, Vermont, New York, and New Jersey will direct the majority of RGGI funds to saving energy.

In the 2009 federal recovery package, policy-makers appear poised to support state and federal energy efficiency programs as a means of creating employment opportunities while addressing energy security and environmental concerns. Building on this foundation, continuing efficiency investment should be funded by revenue raised in a national cap-and-trade system. This would ensure that we continue to capture the lowest cost resource (which expands with technology), while containing costs by reducing demand for electricity and lowering the cost of achieving greenhouse gas reduction goals.

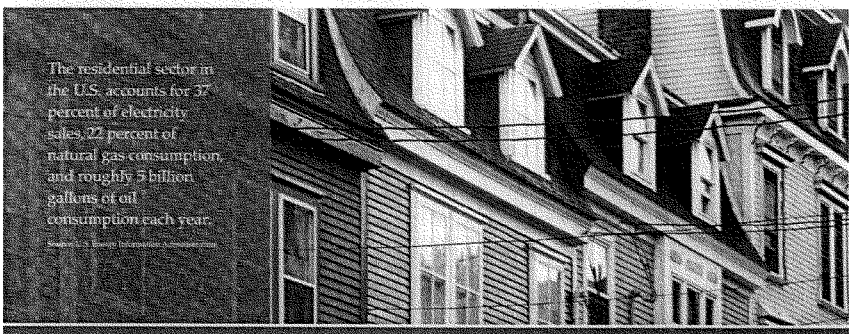
Accountability: Monitoring & Verification of Real and Lasting Savings

Demonstrating results is a critical concern in implementing state and utility administered energy efficiency programs. Having been entrusted with ratepayer dollars, program administrators are required to demonstrate the energy savings they generate through well-documented records and independent monitoring and verification. Energy efficiency programs undergo rigorous review and verification through independent financial audits, savings verification processes conducted by state utility commissions, and other independent audit processes.

Chapter 1

The Residential Sector

With more than 100 million households in the United States, the residential sector offers a multitude of opportunities for energy efficiency improvements.



The residential sector in the U.S. accounts for 37 percent of electricity sales, 22 percent of natural gas consumption, and roughly 5 billion gallons of oil consumption each year.

Source: U.S. Energy Information Administration

Households use energy to cool and heat their homes, to heat water, and to operate a wide range of appliances such as refrigerators, stoves, televisions, and computers. High efficiency appliances, energy efficient lighting, programmable thermostats, and improved insulation offer some of the best strategies to reduce home energy use and save consumers money. This chapter features case studies of some of the leading energy efficiency programs from around the nation aimed at reducing household energy use.

Featured Case Studies
(1) Seattle City Light's *Twist & Save* program reduces the cost of energy efficient light bulbs to help Seattle residents save on their utility bills (2) PG&E's *Energy Partners* program helps low-income customers in northern and central California reduce their energy bills by making energy saving upgrades and repairs (3) National Grid's *EnergyWise* program works with multi-family property owners to help reduce energy use, reducing building operating costs and improving home affordability.

Residential Sector. Case Study #1

Seattle City Light Twist & Save Program

Seattle City Light's **Twist & Save** program encourages the sale and installation of Energy Star® compact fluorescent light bulbs (CFLs) by working directly with retailers to negotiate discounted prices for customers and buying-down the cost of the bulbs. Customers require no coupons or rebate forms, as the utility discount is already reflected in the price of the bulbs on the store shelves.

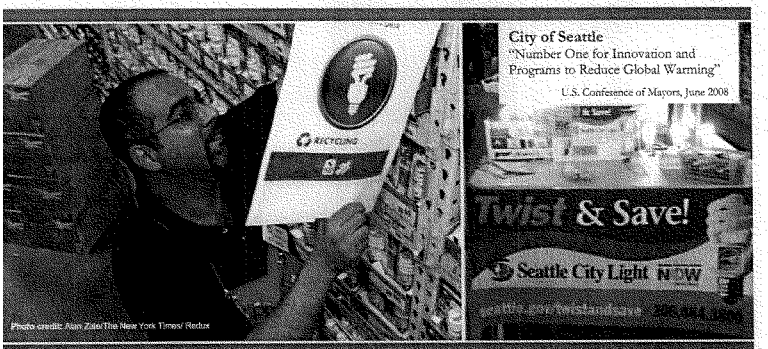
Special in-store events call attention to the promotion throughout the year, supplemented by radio, print and web-based advertising and community-based marketing. Seattle City Light has two designated full time field staff responsible for visiting stores that stock *Twist & Save* bulbs. City Light staff verify that the products are priced correctly and point-of-purchase materials are accurate and visible. Forty-two retail locations throughout Seattle City Light's service territory currently participate.

Twist & Save Program

Annual Budget: $1,373,433*
Discounted Bulbs Sold: 1.29 million*
Energy Savings: 42,699,756 kWh*
Energy Cost: 0.45 cents per kWh*

*2008 data provided by Seattle City Light.
**Estimated electric savings from bulbs sold in 2008.
***This compares to a Washington State average retail electricity rate of 7.57 cents per kilowatt hour in 2008 (residential customers).
Source: U.S. Energy Information Administration

The success of the *Twist & Save* program is largely based on the ability to recruit retail partners willing to mark down prices and provide monthly sales reports, and on the ability to maintain consistent contact with each store location in the field. Due to the success of the *Twist & Save* program, other utility companies in the region have adopted Seattle City Light's innovative "mark-down" approach as a more effective and convenient method for offering rebates to customers.



Home Depot, a partner in Seattle City Light's compact fluorescent light bulb buy-down program, offers a full range of high efficiency lighting products.

Residential Sector. Case Study #2

PG&E Energy Partners Program

Since 1983, PG&E's **Energy Partners** program for low income households has been providing qualified customers with free energy audits, weatherization upgrades, and energy-efficient appliances to reduce their gas and electricity usage. The program is offered to low income homeowners and renters in PG&E's northern and central California service territory. Based on the current guidelines, a family of four with an annual household income below $43,200 would be eligible to participate.

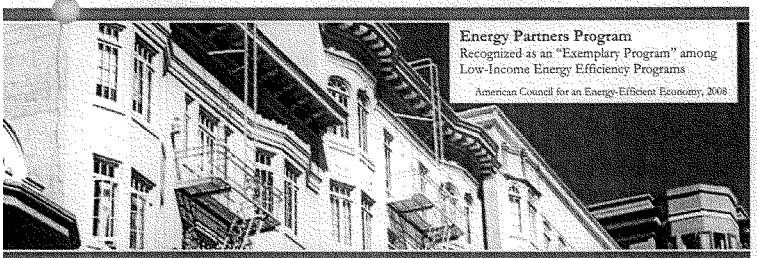
PG&E-certified energy specialists provide free audits that help customers to identify strategies to reduce their energy use. After assessing the home and educating the customer on the options for reducing their energy use, a certified contractor will replace doors, install attic insulation, weather stripping, and energy efficient light bulbs, or conduct minor home repairs. The energy specialist may also recommend replacing outdated and inefficient appliances, including refrigerators and air conditioners. In 2008, 59,000 households participated in the program, saving an estimated 26 million kilowatt hours of electricity and more than a million therms of natural gas.

Energy Partners Program

Annual Budget: $77,733,500[1]
Customers Served: 59,000[1]
Electricity Savings: 26,387,657 kWh[2]
Natural Gas Savings: 1,060,560 therms[2]

[1] 2008 data provided by PG&E.
[2] Estimated annual energy savings.
Note: All data are preliminary and subject to final measurement and verification.

PG&E has developed a successful outreach strategy to promote awareness of the *Energy Partners Program* by using multi-lingual educational materials, networking with church organizations and community groups, airing radio and TV announcements, and participating in community events. Since 1983, more than one million households have participated in the program.



1,576
The number of energy specialists trained by PG&E to conduct comprehensive home energy audits since 1990.

1,105
The number of contractors certified by PG&E to conduct home energy upgrades since 1998.

$611
The average amount saved on a customer's annual electricity and natural gas bill after participating in the Energy Partners program.

1,270,553
The estimated number of households that have participated in the Energy Partners program since its launch in 1983.

Energy Partners Program by the numbers

Residential Sector: Case Study #3

National Grid Energy *Wise* Program

The Princeton Reserve apartment complex, in Dracut, Massachusetts, consists of 168 electrically heated apartment units in seven buildings. The property manager turned to National Grid's **Energy*Wise*** program to help reduce the residents' electricity consumption and energy bills.

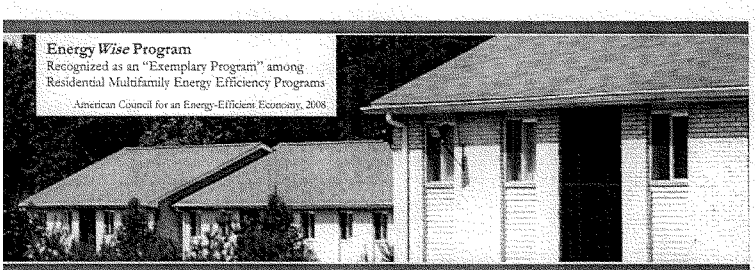
National Grid contractors installed specialized air sealing, high efficiency compact fluorescent lighting, and programmable thermostats, enabling the residents to greatly reduce their electricity consumption. In total, eight people worked on-site: four electricians, three air-sealing crew members, and one project coordinator. National Grid also provided training to facility staff in the best use of the technologies.

Energy*Wise* Program
Annual Budget: $4,479,060[1]
Customers Served: 7,488[1]
Energy Savings: 6,448,356 kWh[2]

[1] 2007 data provided by National Grid.
[2] Estimated annual electricity savings for the energy efficiency investments made in 2007.

National Grid's *Energy Wise* program is specifically intended for multi-family buildings and condominium complexes. The program provides on-site analysis of all electric end uses. Based on the results, National Grid contractors install lighting system upgrades and other electric efficiency measures throughout the facility. The program reduces building operating costs, improves home affordability, and increases comfort.

"Not only does the program promote energy awareness, customers save energy by following the suggestions provided," observed Kurt Shillington, Operations Manager of Princeton Properties. "The program has been an incredible service for our residents," said Shillington.



$176,150 Total project cost for the Princeton Reserve energy efficiency upgrade.

$174,710 Incentive funding provided by National Grid.

245,800 Estimated annual electricity savings in kilowatt hours from the energy efficiency upgrades.

$12,625 Estimated annual electric cost savings from the energy efficiency upgrades.

The Princeton Reserve Apartment project by the numbers

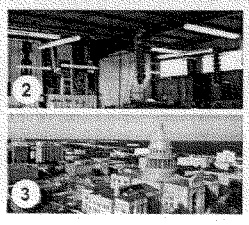
Chapter 2

The Commercial Sector

Office buildings, universities, hospitals, and other commercial buildings provide an opportunity for large-scale reductions in energy use.

The commercial sector in the U.S. accounts for 36 percent of electricity sales and 14 percent of natural gas consumption.

Common uses of energy in the commercial sector include space heating, water heating, air conditioning, lighting, cooking, and running a wide variety of electronic equipment. In some cases, commercial buildings produce electricity and steam on-site, providing additional opportunities for energy efficiency upgrades. This chapter features case studies of some of the leading energy efficiency programs from around the nation aimed at reducing commercial sector energy use, including public lighting.



Featured Case Studies
(1) National Grid worked with the AstraZeneca Hope Lodge to install a solar thermal system and high-efficiency natural gas heating and water heating to minimize natural gas use (2) Seattle City Light's *Smart Business Program* provides financial incentives to small businesses to install high efficiency lighting equipment (3) Austin Energy has achieved dramatic reductions in electricity use (upwards of 90%) by replacing conventional traffic signals with advanced lighting technologies, known as LEDs.

Commercial Sector: Case Study #1

The American Cancer Society's AstraZeneca Hope Lodge provides a nurturing, home-like environment where cancer patients and caregivers can retreat to private rooms or connect with others who are going through similar experiences. Because of National Grid's commitment to energy efficiency and social responsibility, the Hope Lodge was able to build a healthier and safer facility for its occupants.

With technical assistance and incentive programs provided by National Grid, the 64,000 square foot facility was able to install a solar thermal system and high-efficiency natural gas heating and water heating systems during construction. The first guests to the 350-patient facility at 125 South Huntington Avenue, in the Jamaica Plain neighborhood of Boston, arrived the second week of November 2008.

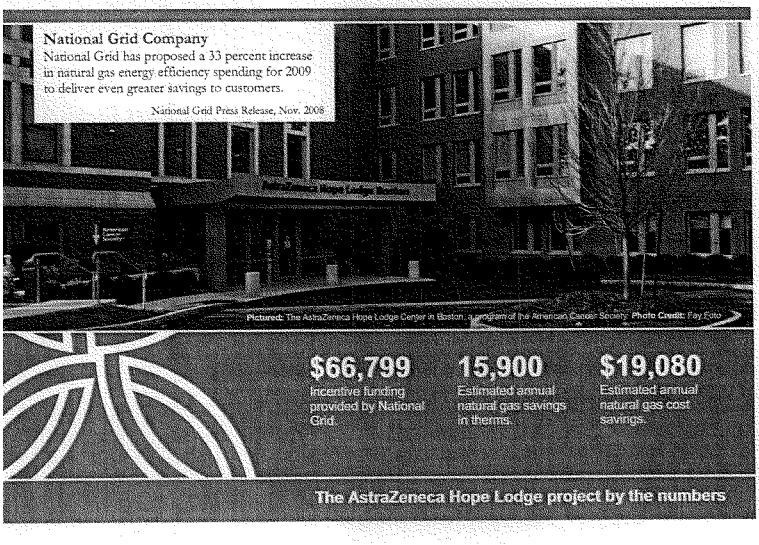
Massachusetts Commercial and Industrial Natural Gas Program

Annual Budget: $4,723,150[1]
Customers Served: 1,891[1]
Energy Savings: 3,052,073 therms[1,2]

[1] 2008 preliminary data provided by National Grid.
[2] Estimated annual natural gas savings, preliminary data provided by National Grid.

The Hope Lodge obtained the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) certification. This provides independent, third-party verification that the project meets the highest green building and performance measures.

The American Cancer Society enjoys lower operating costs due to the conservation of energy and water in its facility. By reducing harmful greenhouse gas emissions and waste sent to landfills, the project becomes an admirable example of environmental stewardship for other facilities in Boston.



Pictured: The AstraZeneca Hope Lodge Center in Boston, a program of the American Cancer Society. **Photo Credit:** Fay Foto

$66,799
Incentive funding provided by National Grid.

15,900
Estimated annual natural gas savings in therms.

$19,080
Estimated annual natural gas cost savings.

The AstraZeneca Hope Lodge project by the numbers

Commercial Sector, Case Study #2

Seattle City Light Smart Business Program

Stella Color, based in Seattle, offers a wide variety of large format digital printing services, including poster printing, wallpaper murals, portable exhibit and trade show graphic displays, and indoor and outdoor banners. Lynn Krinsky founded the print shop in 1988, after moving to Seattle from Boston. Over the past 20 years, the business has expanded, employing sixteen full-time employees and working with an impressive list of clients such as Microsoft, Calvin Klein, Neutrogena, Hormel, and the Seattle Mariners.

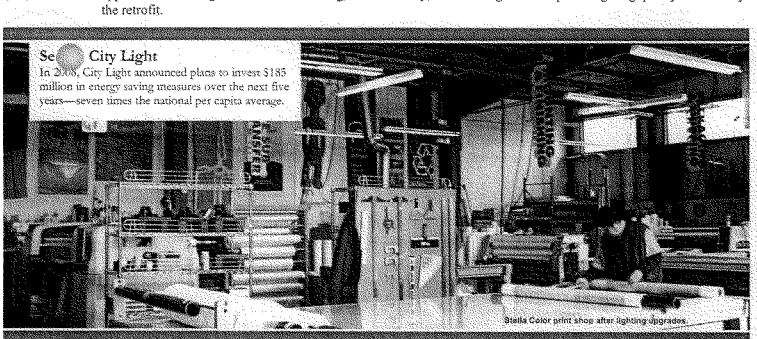
Stella Color was introduced to Seattle City Light's **Smart Business Program** in October 2008 when a City Light employee noticed the high pressure sodium lights in the print shop, explaining to Krinsky that she could improve her energy efficiency and save money with some simple upgrades. When asked what motivated her to join the program, Krinsky responded, "Sometimes you need someone to tell you what you are missing." The *Smart Business Program* provides financial incentives to small businesses for replacing existing lighting with energy efficient lighting equipment. Rebates range from $30 to $65 per fixture.

Smart Business Program

Annual Budget: $990,655[2]
Customers Served: 310[2]
Energy Savings: 36,550,000 kWh[1]
Energy Cost: 2.7 cents/kWh[3]

[2] 2008 data provided by Seattle City Light.
[1] Estimated electricity savings over the life of the energy efficiency investments made in 2008 (assuming 10 yr life).
[3] This compares to a Washington state average retail electricity rate of 6.74 cents per kilowatt hour in 2008 (commercial customers).
Source: City Energy Information Administration

Seattle City Light offered Krinsky a sizable incentive to replace the outdated lights in her warehouse with new, high efficiency lamps and ballasts, and provided a list of recommended contractors. The contractors spent roughly four days completing the retrofit. According to Krinsky, the contractors were "fabulous; efficient, neat, and always on time." Not only did the *Smart Business Program* reduce Stella Color's energy use and operating costs, it dramatically improved working conditions. "I have a much better appreciation of the great work we are doing," said Krinsky, commenting on the superior lighting quality afforded by the retrofit.



Se[illegible] City Light

In 2008, City Light announced plans to invest $185 million in energy saving measures over the next five years—seven times the national per capita average.

Stella Color print shop after lighting upgrades

$9,521	$5,990	34,196	$2,052
Total project cost for the Stella Color energy efficient lighting upgrade.	Incentive funding provided by Seattle City Light.	Estimated annual electricity savings in kilowatt hours from the lighting equipment upgrades.	Estimated annual electric cost savings from the energy efficiency upgrade.

Stella Color project by the numbers

Commercial Sector: Case Study #3

Austin Energy Traffic Signal Project

The light emitting diode, commonly known as the LED, offers dramatic energy savings over conventional lighting technologies and can last many times longer. In an effort to help promote the technology, the City of Austin's electric utility, Austin Energy, has been demonstrating LED technology in a wide variety of applications, including its city streets.

In 2003, the City of Austin replaced over 5,200 traffic signals and 3,700 pedestrian signals with LEDs. The wattage of the traffic signals was reduced from 135 watts to 11-15 watts each, a 90 percent reduction in energy use. Annually, the effort has realized savings of 7.25 million kilowatt hours and removed 830 kilowatts of demand load from the City grid. The City estimates it has saved taxpayers $1.4 million per year plus additional maintenance and labor savings.

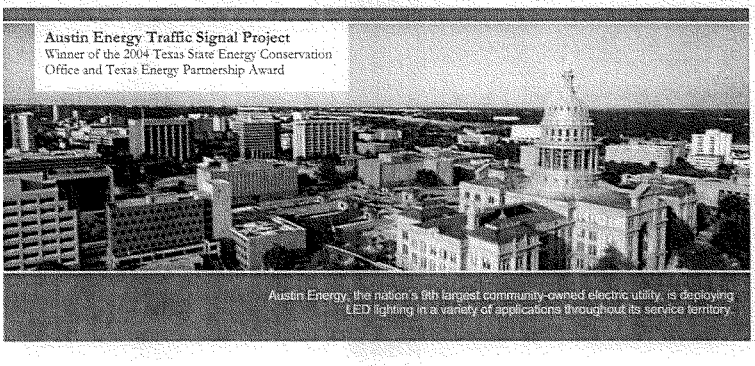
Austin Energy Traffic Signal Project

Project Cost: $2.44 million*
Traffic Signals Retrofit: 8,900*
Energy Savings: 7.25 million kWh †

* 2003 data provided by Austin Energy.
† Estimated annual electric savings as reported by Austin Energy.

Austin Energy continues to promote LED technology in outdoor lighting and commercial buildings. In December 2007, the City of Austin and Austin Energy retrofitted a floor of the One Texas Center Parking Garage with LED fixtures. LED fixtures have also been installed in a hallway at Austin Energy headquarters, in streetlights on Barton Springs, in the Palmer Events Center marquee sign and in the water fountain at the new Palmer Events Center Park.

Austin's LED lighting strategy is part of the City's efforts to achieve Energy Star and LEED Accreditation for City of Austin buildings. The effort will also help the City achieve its climate protection goals.

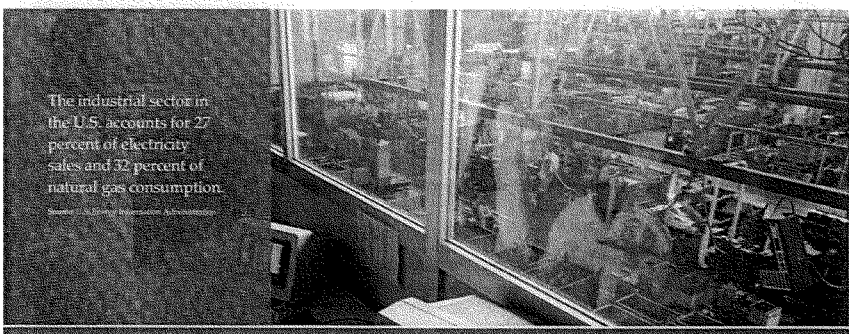


Austin Energy, the nation's 8th largest community-owned electric utility, is deploying LED lighting in a variety of applications throughout its service territory.

Chapter 3

The Industrial Sector

Manufacturers, both large and small, provide important opportunities for energy savings because of their heavy reliance on energy inputs in the manufacturing process.

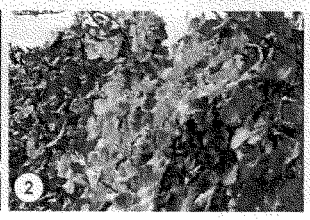


The industrial sector in the U.S. accounts for 27 percent of electricity sales and 32 percent of natural gas consumption.

Source: Energy Information Administration

Energy use in the industrial sector is largely for process heat and cooling and powering machinery, with lesser amounts used for facility heating, air conditioning, and lighting. Petroleum refineries, paper mills, chemical plants, and other manufacturing plants are all examples of industrial sector facilities. Energy efficiency is often fundamental to economic competitiveness in the industrial sector. This chapter features case studies of some of the leading energy efficiency programs from around the nation aimed at reducing industrial sector energy use.

1



2

Featured Case Studies
(1) The Energizer battery plant in St. Albans, Vermont has completed a number of equipment upgrades to reduce its energy use with assistance from the state's efficiency program, Efficiency Vermont (2) When the Asti Winery expanded its operations, it turned to the *Savings By Design* program for support in designing an energy efficient facility.

Industrial Sector: Case Study #1

Efficiency Vermont and Energizer

Energizer is a world leader in battery technology with facilities in both St. Albans and Bennington, Vermont. In 2007, Energizer made a business decision to explore opportunities for energy efficiency improvements and turned to Efficiency Vermont for help.

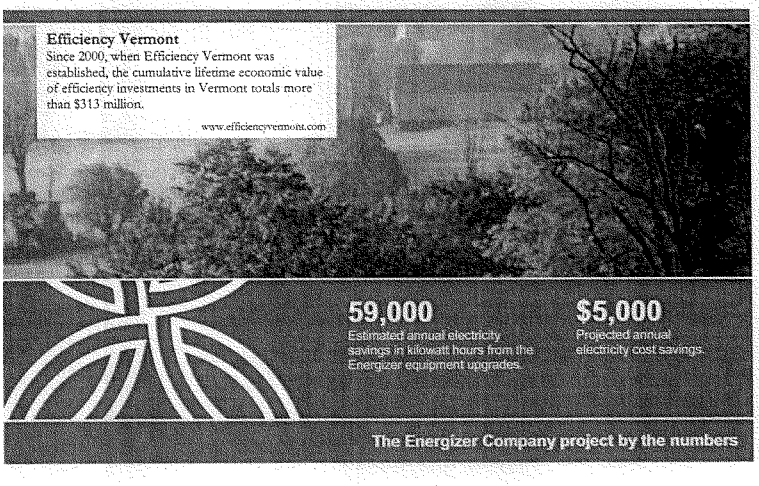
Efficiency Vermont is a statewide provider of energy efficiency services operated by an independent, non-profit organization under contract to the Vermont Public Service Board. Efficiency Vermont provides technical assistance and financial incentives to households and businesses to help reduce energy use. The program is funded by an energy efficiency charge on the electric bill of all Vermont electric customers. In 2006, Efficiency Vermont saved customers an estimated $5.7 million in annual electric, fuel and water bill costs, delivering services to 38,655 customers.

Efficiency Vermont

Annual Budget: $19,334,720[1]
Customers Served: 43,593
Energy Savings: 1,061,927,000 kWh[2]
Energy Cost: 2.4 cents per kWh[3]

[1] 2007 data provided by Efficiency Vermont.
[2] Cumulative lifetime energy savings from 2007 projects.
[3] This includes both the participant costs as well as the Efficiency Vermont's costs. This compares to a Vermont state average retail electricity rate of 10.01 cents per kilowatt hour in 2006 for all retail customers.
Source: U.S. Energy Information Administration

After Energizer officials in the St. Albans facility asked for help in reducing their energy use, Efficiency Vermont began installing meters to track energy use on specific equipment and completed an energy-walk through of the facility. Efficiency Vermont project managers identified several opportunities for energy savings. Guided by the evaluation of the company's equipment, and prioritizing its new equipment needs relative to the incentives Efficiency Vermont was offering, Energizer installed a new, high-efficiency injection molding machine. The company also upgraded a compressed air system, replaced an existing air dryer with a new energy-efficient model, and upgraded facility lighting.



Industrial Sector. Case Study #2

Savings By Design Program

In 2006, the Asti Winery in Sonoma County, California began planning a major facility expansion. The winery wanted to create a facility that was sustainable, environmentally sound and good for business consistent with their green corporate mission. With the help of PG&E, Asti Winery found solutions to its challenges in the **Savings By Design** program. The *Savings By Design* program is a state-wide utility administered initiative that supports energy-efficient commercial, industrial and agricultural building construction and design.

In planning and constructing the new facility, PG&E presented the Asti Winery with an array of insulation, lighting and compressor efficiency recommendations to minimize energy use. Asti's final design included motion-sensor lighting, automated compressors and fans, and tank insulation that maximizes refrigeration efficiency.

Savings By Design Program

Annual Budget: $23,299,676[1]
Customers Served: 391
Energy Savings: 56,611,951 kWh[2]
Energy Cost: 2.19 cents/kWh[3]

[1] Expenditures and customer count reported for January-September 2008 provided by PG&E. Although Savings By Design is a state-wide program, the expenditures represent only PG&E projects.
[2] Annual Net kWh savings reported for January-September 2008 by PG&E.
[3] Expenditures divided by the lifecycle net kWh savings reported for January-September 2008. This compared to a California state average retail electricity rate of 13.12 cents per kilowatt hour in 2008 commercial customers.
Source: U.S. Energy Information Administration

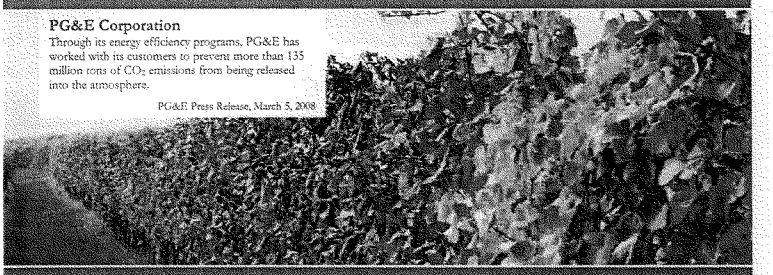
Asti's new facility covers nearly 100,000 square feet, including 93 wine storage tanks in addition to a cold storage facility. Upon installation and completion of the project, PG&E estimated total combined annual electricity savings of 1,224,191 kilowatt hours, enough to supply 177 homes for a year, and 462.5 kilowatts in electricity demand savings. The company also earned incentives from PG&E of $165,325. Simple payback for the wine tank insulation measure was 3 years, but with the PG&E incentives factored in, the payback was reduced to less than two years. Similarly, the combined lighting, fan and compressors measures simple payback time was 1.2 years and with the PG&E rebate included, the adjusted payback time was only 5 months.

"We couldn't be happier with the results," said Jeff Collins, General Manager of Asti Winery. "We're seeing significant energy savings and reduced costs across the board."

PG&E Corporation

Through its energy efficiency programs, PG&E has worked with its customers to prevent more than 135 million tons of CO_2 emissions from being released into the atmosphere.

PG&E Press Release, March 5, 2008



Asti Winery's new facility covers nearly 100,000 square feet and includes 93 wine storage tanks in addition to a cold storage facility.

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American Council for an Energy Efficient Economy ★ American Gas Association ★ American Public Gas Association ★ Avista ★ Chelan Public Utility District ★ Cowlitz Public Utility District ★ Environment Northeast ★ Environmental Defense Fund ★ Exelon Corporation ★ Missouri River Energy Services ★ National Association of Regulatory Utility Commissioners ★ National Grid ★ Natural Resources Defense Council ★ Northern California Power Agency ★ PG&E Corporation ★ Public Generating Pool ★ Public Power Council ★ Seattle City Light ★ Snohomish Public Utility District ★ Tacoma Power

June 4, 2008

Senator Diane Feinstein
United States Senate
331 Hart Senate Office Building
Washington, DC 20510

Dear Senator Feinstein:

We write to reinforce the importance of Section 601 of the Boxer-Lieberman-Warner Substitute to the Climate Security Act S. 3036. Sec. 601's distribution of emission allowances to local utilities provides economic assistance to electricity and natural gas consumers – with a special program for low-income residential consumers – who will face higher energy costs in the years ahead due to passage of the legislation. Proceeds from the sale of the allowances can also support distributed generation technologies, energy efficiency and demand response programs. The Substitute's provisions would benefit the utilities' customers, not the utilities. We urge you to oppose efforts that would weaken these important provisions.

Our organizations are united around the need to protect electricity and natural gas consumers from rapidly rising costs during the transition to a low-carbon economy. While we may have differing views on the Boxer-Lieberman-Warner Substitute to the Climate Security Act, we all support allocating allowances to the regulated electric and natural gas local distribution companies (LDCs) who would be required to use those allowances to benefit their customers. Specifically, the Substitute's provisions allocating emissions allowances to LDCs are critically important to directing, in a transparent manner, the value of allowances to electricity and natural gas consumers for use in ways that will help them manage costs and reduce energy usage. These provisions will advance energy efficient technologies and ensure that every utility in the country implements robust programs to effectively meet the needs of low-income households.

Allocating allowances to LDCs is an effective and important way to help electricity and natural gas consumers address the challenges of rising energy costs. Without the LDC provisions, the bill would not include a specific mechanism to address increasing energy costs for low- and middle-income residential consumers and small businesses in a

targeted way, while also increasing energy efficiency and low-carbon technology deployment.

As written, allocations to LDCs will provide a transparent framework for electricity and natural gas consumers, including low-income households, to obtain help coping with the price impacts of their utility bills, in part through solutions such as energy efficiency and economic assistance, which will have sustainable, long-term benefits for consumer energy costs and also help achieve additional reductions in greenhouse gas emissions.

Electric and natural gas LDCs are well positioned to implement programs that help small customers manage their bills, and do so in a way that serves the unique needs of the communities they serve. This is because (1) LDCs have established relationships with each end-use customer, (2) LDCs are subject to state utility commission or governing board oversight which will ensure the value of the allowances is delivered to consumers, and (3) many LDCs have existing energy efficiency and low-income energy assistance programs to build on. In addition, the legislation establishes an open and transparent regulatory process to oversee the distribution of allowance value to LDCs, inviting and accepting input from multiple stakeholders that represent the very consumers the allowance value is intended to benefit.

We ask that you maintain the assistance provided to electricity and natural gas consumers through this provision. We look forward to working with interested Members to ensure the effective and efficient use of these allowances to assist customers, particularly those most in need, and advance energy efficiency and related greenhouse gas reduction opportunities.

Issue Overview:
Use of Allowance Value

On January 15, 2009, the U.S. Climate Action Partnership (USCAP) issued the *Blueprint for Legislative Action* – a detailed framework for legislation to address climate change. This brief discusses the use of allowance value in a cap-and-trade program. It should be considered in the context of the detailed and integrated recommendations in our *Blueprint*.

Background

Under a cap-and-trade system, overall greenhouse gas (GHG) emissions are capped and a supply of emission "allowances" is created up to the level of the cap. Emission sources covered by the cap are required to submit one allowance for each ton of GHGs they emit, or face a penalty substantially higher than the cost of an allowance. Allowances can be made available to covered sources through an auction, free allocation, or some combination of free allocation and auction.

Whether emitters buy all their allowances through an auction or receive allowances through free allocation, they face the same incentive to reduce emissions to the levels required by the cap specified in the legislation. This means that auctioned allowances, free allocation of allowances, or a combination of the two, will all result in the cap being met. Because all allowances can be bought and sold in an allowance trading market, the resulting price of allowances creates the same incentive to reduce emissions, regardless of how the allowances are initially distributed. Covered sources that receive free allocations will seek to reduce emissions so they can be sellers of allowances. Covered sources that have to purchase allowances will seek to reduce emissions to avoid having to buy allowances.

Looking more broadly, emission allowances in an economy-wide cap-and-trade system represent trillions of dollars in value over the life of the program. There may be two components of this value: any GHG allowances that are distributed for free, which represent a financial asset; and the revenue from any auction of allowances. The *Blueprint* calls the sum of these "allowance value." How that value is distributed and invested will have critically important effects on how our nation achieves its climate protection goals. Thus, it is important to establish an effective and equitable framework for allocating this allowance value.

USCAP's Recommendations on Use of Allowance Value

USCAP believes that allowance value should be used to accomplish three broad public purposes:

1. To help consumers and businesses transition to a low-carbon economy;
2. To drive rapid investment in low carbon technology and training of the skilled workforce needed to speed its deployment; and
3. To adapt to the inevitable changes to the climate already occurring.

Building upon these broad public purposes, USCAP recommends that a significant portion of allowance value in the early years of the program should be directed to:

- **End-use energy consumers** – USCAP recommends a significant share of the allowance value should be used to buffer the impacts of increased costs to consumers at the end of the energy supply chain. In the case of electricity and natural gas consumers, USCAP recommends doing so through allocations to state-regulated local distribution companies (LDCs) with the express condition that the full value of these allowances go to electricity and natural gas consumers. State public utility commissions (PUCs) will determine the best means to direct the value to consumers by directly mitigating rate increases, enhanced energy efficiency programs, or other means to buffer the impact of increased energy costs. In the case of transportation consumers, USCAP recommends that some allowance value be used to

buffer transportation-related costs through a combination of cost mitigation and incentives to encourage greater use of public transportation and purchasing more efficient vehicles.

- **Transitional assistance to trade-exposed business** such as energy-intensive manufacturers facing foreign competition from countries without comparable climate programs. Without an initial allocation of allowance value, such manufacturers might lose market share or be forced to relocate production to lower cost areas, causing the "leakage" of emissions and jobs to other counties, undermining the emissions reductions achieved in the U.S.
- **Transitional assistance to competitive large stationary sources** to the extent they cannot recover their allowance costs in their product prices. These initial allocations would be set to facilitate and create incentives for the timely investment in alternative low and no-carbon large stationary technologies, phasing out as it becomes practicable to deploy these technologies.
- **Technology and workforce transformation** that accelerates the development of new low- and zero-GHG emitting technologies and fuels while helping to transition and train the nation's workforce to manufacture, operate, and maintain these new technologies.
- **Adapting to the challenge of climate change in the United States and abroad** including funding the international commitments made by the United States in a global agreement. Central to that effort are programs that increase the resiliency and capacity of ecosystems and human communities to adapt to change.

Consistent with these goals, USCAP recommends that a significant portion of allowances initially be distributed for free. The free distribution of allowances should phase out and an increasing share of allowances should be auctioned over time. Moreover, USCAP recommends that these allocations should not create undue or "windfall" gains for private firms, but should instead support the ability of firms to meet the broad public purposes of the climate protection program.

With regard to USCAP's recommendation that allowances be allocated to state-regulated LDCs, such entities would sell the allowances they receive for use by entities regulated under the cap. The revenues generated from the sale of allowances would be returned to consumers in a manner to be determined by PUCs. The advantages in relying on LDCs for returning allowance value to electricity and natural gas consumers include:

- LDCs are subject to well-established state regulatory oversight, ensuring that the value of the allowance allocation would fairly and transparently benefit consumers.
- LDCs have experience managing consumer benefit programs such as low-income assistance and energy efficiency programs. PUCs might also decide to set prices that are deemed equitable to all classes of consumers. These pre-existing programs and mechanisms provide a means to quickly and effectively deliver allowance value to consumers.
- LDCs and their contractors have established relationships with their customers to service their homes and businesses, conduct energy audits, and meter and bill for consumption each month. These relationships will enable LDCs to identify and deliver allowance value to consumers.

To learn more about the USCAP *Blueprint for Legislation Action*, please visit www.us-cap.org.

Mr. MARKEY. Thank you very much, Mr. Kline.

Our next witness is Mr. Sonny Popowsky, Consumer Advocate of the State of Pennsylvania, where he represents consumer matters with their utility companies. We welcome you, sir, and whenever you are ready, please begin.

STATEMENT OF SONNY POPOWSKY

Mr. POPOWSKY. Thank you, Mr. Chairman, Mr. Upton, members of the committee. My name is Sonny Popowsky. I have been the Consumer Advocate of Pennsylvania since 1990, and I have been a member of that office since 1979. My office is also a member of the National Association of State Utility Consumer Advocates.

Let me state at the outset that the National Association, NASUCA, supports the enactment of federal legislation to reduce greenhouse gases on an economy-wide basis. As representatives of utility consumers, however, it is NASUCA's position that any greenhouse gas emission reduction program for the electric industry should provide appropriate emission reductions while minimizing the cost to consumers and must not produce windfall gains for electric generators at the expense of electric customers.

Now, the primary focus of the Congressional debate has been on the development of a cap-and-trade program for carbon dioxide. I think that is understandable given the success from an economic perspective of the Clean Air Act of 1990, with respect to the reduction in sulfur dioxide emissions.

But Congress must recognize that the electric industry of 2009, is far different from the electric industry of 1990, particularly in those States such as my home State of Pennsylvania that have restructured or deregulated the generation function of our electric utilities. What worked to reduce pollution at reasonable costs for the United States Electric Industry of 1990, could well result in much higher costs to consumers and many billions of dollars of unnecessary payments to generators in the electric industry of 2009.

This difference is most clear in the question of how to distribute emission allowances among electric providers. In 1990, under the Clean Air Act allowances were initially allocated at no charge to utility generators, but the benefit of those free allowances in 1990, could be flowed back to customers through cost-based rates throughout the Nation. To the extent that the utilities incurred costs to comply with the Act through adding scrubbers or buying lower sulfur coal, those costs were passed through to customers but no more than that.

The same is not true in the electric industry in 2009, particularly, again, in States like Pennsylvania and other restructured states where electricity is no longer regulated on a cost basis but on a market basis.

So the first point to recognize is the one that you made, Chairman Markey, which is that if you give away an allowance to an unregulated generator, they are going to charge us for them anyway. Because in the unregulated markets like the market that we are a part of, the market value or opportunity costs of that allowance will still be reflected in the price that is charged by that generator. Your analogy to the scalper outside Boston Garden is exactly correct. That scalper won't pick up the ticket and give it away. The

scalper will pick up the ticket off the ground and sell it at the market price.

The second point is that the way our markets work and it is what is called the single market clearing price in the restructured markets, which, again, not just Pennsylvania but in these markets that are in a large part of the country, the single market price works that the highest cost unit that is operating in that given hour sets the price for the whole market. So if that high-price unit is a coal or even a gas unit that includes the cost of the—or the opportunity cost of the credit, that amount gets charged, gets paid to everyone, including, for example, nuclear units that don't have any emissions costs, that don't have to buy allowances but they will still get paid an amount in their charges as if they were incurring these costs.

So the single-market clearing price would work, it is as if in your analogy, Chairman Markey, if the scalper charged $100 to get into the Garden, everybody got charged $100. That is the way it works. Everybody would have to pay the highest price. So that is another source of tremendous cost to customers under a cap-and-trade program if we think it is still 1990.

Well, I think I agree with Mr. Kline, though, in that one way to address this is not to give away allowances to unregulated generators, but you can get around at least part of this by giving the allowances to the regulated distribution companies; the state regulator investor owned companies, the coops, immunities, and the other public power organizations. If we give the allowances to the regulated entities, at least we can make sure that to the extent those allowances are sold that the benefits go to consumers.

That similar result can occur, as you know, in the RGGI states in the Regional Greenhouse Gas Initiative where the states can serve a similar role and can sell the allowances to the generators, but make sure that the allowance benefits go to customers, and the same could even be done at the federal level, but, again, the further away we get from the customer, the more it concerns me that the benefits of the allowances will not go to the customers.

My last point is that simply raising the price of electricity through a cap-and-trade system is, I think, harmful and not the most cost-effective way to reduce emissions. We need complimentary policies such as increased energy efficiency and replacement of existing high carbon units with low or no carbon-emitting units. We need these complimentary policies that are designed to reduce costs for consumers and provide the environmental benefits at the lowest cost.

Thank you.

[The prepared statement of Mr. Popowsky follows:]

BEFORE THE
UNITED STATES HOUSE OF REPRESENTATIVES
COMMITTEE ON ENERGY AND COMMERCE
SUBCOMMITTEE ON ENERGY AND ENVIRONMENT

Testimony of

SONNY POPOWSKY
CONSUMER ADVOCATE
OF PENNSYLVANIA

Regarding

Consumer Protection Policies for Climate Legislation

Washington, DC
March 12, 2009

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SUMMARY OF TESTIMONY

The National Association of State Utility Consumer Advocates (NASUCA) supports the enactment of federal legislation to reduce greenhouse gases on an economy-wide basis. It is NASUCA's position, however, that any greenhouse gas emission reduction program for the electric industry "should provide appropriate emission reductions while minimizing the cost to consumers, and must not produce windfall gains for electric generators at the expense of electric consumers."

The primary focus of the Congressional debate has been on the development of a cap and trade program for carbon dioxide emissions. This focus is understandable, given the great success of the cap and trade program for sulfur dioxide emissions under the Clean Air Act of 1990. Congress must recognize, however, that the electric industry of 2009 is far different from the electric industry of 1990, particularly in those states that have restructured, or deregulated, the generation function of our electric utilities.

Under the 1990 Clean Air Act, allowances were initially allocated free of charge to utility generators, and the benefits of those free allowances were effectively passed through to customers through their cost-based rates in states across the Nation. The same result will not occur today, particularly in "restructured" states where electric generation rates are no longer based on the actual cost of service, but rather are based on unregulated wholesale market prices. If allowances are given for free to carbon-emitting generators in deregulated markets, those generators will nevertheless include the market value (or opportunity cost) of the allowances in the prices that they bid into the market, and consumers will pay the market value of these allowances in generation prices, even though they cost the generator nothing. Moreover, under the "single market clearing price" method that is used to establish generation prices in restructured markets, if the market clearing price reflects the cost (or market value) of an emission allowance, this price will be paid to all generators that are operating in that hour, including nuclear units that do not need to purchase allowances and do not incur any carbon compliance costs. As a result of these factors, consumers could pay many billions of dollars in increased generation prices with only modest reductions in actual carbon dioxide emissions.

To the extent that allowances are to be given at no cost to any segment of the utility industry, those allowances must not be given to unregulated generators, but to regulated local distribution companies, which should include state-regulated investor-owned utilities as well as rural cooperatives, and municipal and other publicly owned companies. The benefits of those free allowances must be flowed back to consumers through such means as customer rebates, energy efficiency programs, and low-income energy assistance. A similar result can be achieved if allowances are distributed to the states, as in the Regional Greenhouse Gas Initiative, and the states then auction the allowances to generators with the proceeds of those auctions utilized for the benefit of that state's consumers. Alternatively, the allowances can be auctioned directly to generators by the federal government, but it is important that proceeds from such an

auction be utilized to benefit consumers through dedicated programs such as utility rebates, energy efficiency programs, and low income energy assistance.

Simply raising the price of electricity by adding the cost of carbon dioxide emission allowances is not the most effective way to reduce carbon emissions in the electric power sector. Any cap-and-trade legislation should be coupled with complementary policies to support energy efficiency and the development of new, low-or-no carbon emitting generation resources, that are designed to minimize the overall cost to electricity consumers and to meet our climate change goals in the most cost-effective manner.

**Chairman Markey, Ranking Member Upton,
and Members of the Subcommittee on Energy and Environment**

Thank you for inviting me to testify on this issue which I believe is critical to the debate on climate change legislation in this Nation – that is, the impact on consumers, particularly electric utility consumers, of the costs of reducing carbon dioxide and other greenhouse gas emissions over the next decades.

My name is Sonny Popowsky. I am the Consumer Advocate of Pennsylvania and I have served in that position since 1990. I have worked at the Pennsylvania Office of Consumer Advocate since 1979. My Office was also a charter member of the National Association of State Utility Consumer Advocates (NASUCA), and I have previously served as the President and the Chairman of the Electricity Committee of that organization. My Office and other NASUCA members are authorized by our respective state laws to represent the interests of utility consumers before state and federal regulatory agencies and courts. NASUCA has 44 member offices, representing consumers in 40 states and the District of Columbia.

Let me state at the outset that NASUCA supports the enactment of federal legislation to reduce greenhouse gas emissions on an economy-wide basis. Indeed, NASUCA approved its first Resolution on this issue in 1990. In our 1990 Resolution, NASUCA "acknowledged the need to reduce emissions of greenhouse gases" and recommended to the utility industry "that its resource planning must take into account the growth in those emissions." The point of that Resolution was that, even in 1990, we concluded that it was in the economic best interest of both utilities and their ratepayers to consider the costs and risks of continuing to rely on generation plans that did not account for the potential future costs of reducing carbon dioxide and other greenhouse gas emissions. More recently, in a Resolution approved in 2007, NASUCA

explicitly called on Congress to implement a program to reduce greenhouse gas emissions. Importantly, from our consumer perspective, we stated that any greenhouse gas emission reduction program "should provide appropriate emission reductions while minimizing the cost to consumers, and must not produce windfall gains for electric generators at the expense of electric consumers."

The primary focus of the Congressional debate in recent years has been on the development of a cap and trade program for carbon dioxide emissions. This focus is understandable, given the substantial success of the cap and trade program for sulfur dioxide emissions under the Clean Air Act of 1990. In my view, it makes sense from an environmental perspective to impose a declining overall cap to reduce the level of emissions over time to a scientifically determined target; and it makes sense from an economic perspective to enable emitters to achieve those reductions at a lower cost by permitting the trading of allowances as occurred under the 1990 Clean Air Act.

My concern, however, is that the electric industry of 2009 is far different from the electric industry of 1990, particularly in those states (like my own state of Pennsylvania) that have restructured, or deregulated, the generation function of our electric utilities. What worked to reduce pollution at reasonable costs for the United States electric industry of 1990 could well result in much higher costs to consumers and unnecessary windfalls to generators in the electric industry of 2009.

This difference is most pronounced when considering the question of how to distribute emission allowances among electric generation providers. Under the 1990 Clean Air Act, allowances were initially allocated free of charge to utility generators, and the benefits of those free allowances were effectively passed through to customers through their cost-based rates in

states across the Nation. To the extent that utilities incurred costs to comply with the 1990 Act, such as by adding scrubbers or by purchasing lower-sulfur coal, the utility's ratepayers paid for those costs in regulated rates. In 1990, those costs were limited to the actual costs of compliance with the requirements of the Act.

The same result will not occur today, particularly in "restructured" states such as Pennsylvania and many of the Nation's most populous states. In these states, electric generation rates are no longer based on the actual cost of service, but rather are based on unregulated wholesale market prices. The first point to recognize in the restructured states is that, even if Congress were to give emission allowances free of charge to emitting generators, those unregulated generators will still charge customers for the value of those allowances as part of the market price for their generation. This is not a matter of conjecture, nor is it, to my knowledge, a matter of economic debate. If allowances are given for free to carbon-emitting generators in a deregulated market, those generators will nevertheless include the market value (or opportunity cost) of the allowances in the prices that they bid into the market. This pattern has already occurred in the European Union, and it will happen here in our restructured markets if allowances are given away free to unregulated generators.

The second point to recognize in our restructured markets is that, under the "single market clearing price" method of establishing generation prices, the wholesale price of electricity in each hour is determined by the highest cost unit operating in that hour. If this market clearing price reflects the cost (or market value) of an emission allowance, the price paid to that unit will include the value of the allowance, and this price will be paid to all generators that are operating in that hour. So, for example, if a coal unit is setting the market clearing price (which is what actually occurs in 70% of the hours on the PJM Interconnection) the value of the emission

allowances used by the coal unit will be included in the price that is paid to all the plants that are operating in that hour, including nuclear units that have no carbon emissions, no carbon compliance costs, and therefore no need to purchase emission allowances. This is the source of the "multi-billion dollar windfall" to the nuclear power industry that the Wall Street Journal accurately reported would occur in deregulated states if a carbon cap and trade system is put in place. [1] These billions of dollars of additional costs will be paid to owners of existing nuclear plant in the restructured electricity markets simply for continuing to operate as they do today.

I would note in this regard that the PJM Interconnection has recently issued a valuable report that estimates the increased wholesale energy market prices, and cost to consumers, that would result from various cap and trade proposals in the year 2013.[2] PJM estimates that, if the price of carbon dioxide emission allowances were $20 per ton, then the "impact on the PJM Energy Market could be power price increases as high as $15/Mwh, and market-wide expenditures increase by as much as $12 billion, while providing emission reductions from PJM sources of approximately 14 million tons." PJM Report at page 25. I believe this finding is interesting for two reasons. First, it suggests that PJM customers will pay $12 billion in higher energy prices in 2013 in order to reduce emissions by 14 million tons, which comes out to a cost of over $850 per ton of carbon dioxide reduction.[3] Second, because approximately 33.9 percent (or 255 million megawatthours) of PJM generation comes from existing nuclear power plants[4], it would appear that one-third, or $4 billion, of the $12 billion in increased energy costs in 2013

1 "Carbon Caps May Give Nuclear Power a Lift," Rebecca Smith, Wall Street Journal, May 19, 2008.
2 Potential Effects of Proposed Climate Change Policies on PJM's Energy Market, PJM, January 23, 2009.
3 The reductions in carbon emissions will occur through the displacement of some coal generation by natural gas generation, which typically has a higher fuel cost, but a lower carbon emission rate than coal.
4 PJM 2007 State of the Market Report, page 145.

will go to existing nuclear plants, who are already operating today at full capacity and who incur zero carbon compliance costs.

This discussion brings me back to the NASUCA 2007 Resolution, which supports Congressional action to reduce carbon emissions, but urges that it be done in a manner that minimizes the cost to consumers and does not produce windfall gains to electric generators. The key to approaching these goals is to ensure that emission allowances are allocated properly and that proceeds from any sale of these allowances should be flowed back to the benefit of the electric consumers who are bearing the cost of this program.

First, it should be clear that allowances must not be allocated at no cost to deregulated generators, who will turn around and charge us for them anyway. To the extent that allowances are to be given at no cost to any segment of the utility industry, those allowances should be given to the regulated local distribution companies, or LDCs.[5] To the extent that LDCs are paid by generators for the purchase of those allowances, then, in my view, the proceeds must be flowed back to ratepayers through such means as customer rebates, energy efficiency programs, and low-income energy assistance. Just as it would be inappropriate to give unregulated generators the proceeds from the sale or use of free allowances, so too would it be inappropriate to provide this money to electric distribution utilities for purposes other than to benefit their respective ratepayers. The key point is that all electric distribution utilities in the United States are either regulated by state commissions (in the case of investor-owned utilities), or are customer-or publicly owned (in the case of co-ops and municipal and public power companies). As a result, there are reasonable mechanisms in place to ensure that the benefits of any free allowances will go to consumers.

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5 The local distribution companies who would receive allowances under this approach would include not just state-

Depending on how proceeds are treated, a similar result can be achieved if allowances are initially distributed to the states, as has been done under the Regional Greenhouse Gas Initiative (RGGI) in a large portion of the Northeastern United States. As in RGGI, the allowances that are given at no charge to the states can then be sold to generators through an auction, with the proceeds of those auctions flowing back to the benefit of the state's consumers such as through investments in energy efficiency.

Alternatively, the allowances can be auctioned directly by the federal government, but as a utility consumer advocate, my major concern would be that proceeds from such an auction should be utilized to benefit the consumers who would be bearing the cost of the carbon allowances and compliance costs through their electric generation prices. To the extent that a federal auction is utilized for allowances within the electric industry, I would urge Congress to ensure that the consumers who pay for these allowances through higher generation rates are compensated for these additional costs through dedicated programs such as utility rebates, energy efficiency programs, and low income energy assistance.

One of the design goals of any cap and trade program, in my opinion, should be to reduce the cost of carbon reductions to consumers and to the economy as a whole. Simply raising the price of electricity by adding carbon costs is not the most effective way to reduce carbon emissions in the power sector. As recently noted in an important article by former Vermont Public Service Board Chair Richard Cowart: "cap-and-trade programs that try to reduce emissions through price alone will be much more costly and will save less carbon than a cap-and-trade program that includes proven techniques to deliver low-cost efficiency responses."[6]

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regulated investor-owned utilities, but also rural cooperatives and public power companies.
6 "Carbon Caps and Efficiency Resources: How Climate Legislation Can Mobilize Efficiency and Lower the Cost of Greenhouse Gas Emission Reduction," 33 Vermont Law Review 201, 203 (2009).

This point was illustrated in the PJM Study that I referenced earlier. As shown in that study, raising carbon prices alone has a limited impact on the dispatch of fossil fueled generation and therefore a limited impact on the level of carbon emissions in a given year. Even at an assumed cost of $60 per ton of CO_2 emission allowances, and an annual PJM-wide market impact of nearly $36 billion in higher energy prices in 2013, the PJM Study finds an emissions reduction due to changes in generation dispatch of only about 25 million tons. PJM Report at 24. This equates to a cost to consumers of more than $1400 per ton of CO_2 removed. Significantly, however, the PJM Study also concludes that increased energy efficiency can substantially reduce the effect of carbon controls on energy costs, both by reducing market clearing prices and by reducing consumption. According to the PJM Study, a 2% load reduction could reduce annual market costs by $4 billion, while a 10% load reduction would reduce such costs by as much as $18 billion. PJM Study at 26. PJM also finds that increased development of wind power, which has zero fuel cost and zero carbon emissions, can reduce costs substantially by displacing primarily coal generation. According to the PJM Study, the addition of 15,000 megawatts of wind capacity would reduce annual wholesale market prices by from $3.55 billion to $4.74 billion, while also reducing annual carbon dioxide emissions by 35 million tons. Id.

These analyses lead me to conclude that cap-and-trade legislation should be coupled with a set of complementary policies to support energy efficiency and the development of new, low-or-no carbon emitting generation resources, that are designed to minimize the overall cost to electricity consumers and meet our climate change goals in the most cost-effective manner.

It will not be easy or inexpensive for our Nation's electric industry to reduce carbon emissions to the levels envisioned in the climate change legislation that has been considered in Congress. Increases in electricity bills can be hard on any household, and particularly low-

income households that pay the largest share of their income toward their home energy bills. In your further deliberations on this vital matter, I would respectfully urge the members of this Committee and of Congress to take actions that will address our environmental needs without imposing unnecessary additional costs on electricity consumers.

Thank you again for inviting me to participate in this hearing. I would be happy to answer any questions you may have at this time.

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Mr. MARKEY. OK. Thank you, Mr. Popowsky, very much.

Next witness is Mr. Robert Greenstein. He is the Founder and Executive Director of the Center for Budget and Policy Priorities. He was recently honored with the Heinz Award for Public Policy to recognize his work in improving, the economic outlook of low-income Americans. And he has also won the John W. Gardner Award. We welcome you, sir.

STATEMENT OF ROBERT GREENSTEIN

Mr. GREENSTEIN. Thank you very much, Mr. Chairman, and in this testimony I will provide a different view than those you have just heard.

Climate change policies can be designed in a way that preserve the incentives from higher energy prices while using proceeds from auctioning allowances to shield consumers. But to do that it is essential that most or all of the permits be auctioned rather than given away free. An argument is sometimes made that if the permits are given away free, costs to consumers won't rise as much.

Economists across the political spectrum reject that argument. It ignores the basic laws of supply and demand. If allowances are given away free to firms that emit, the firms and their shareholders will reap on warranted benefits. The Congressional Budget Office has explained that and said that the result would be windfall profits. Former President George W. Bush's Chief Economic Advisor, Greg Mancue of Harvard, has explained the same thing and said the result would be large-scale corporate welfare.

Most of the Center on Budgets' work on climate policy has focused on developing proposals to shield low and moderate-income households from increased poverty and hardship as a result of climate policies in a way that would be effective in reaching these households, efficient with low administrative costs, and consistent with energy conservation goals without lessening incentives to conserve.

With these goals in mind we have designed a climate rebate that would offset the average impact of higher energy-related costs on low and moderate-income households. The energy would be delivered in two ways.

For very-low-income households it would be programmed onto the debit cards that every State runs through State electronic benefit transfer systems. These are the debit card systems States already use to deliver food stamps and other forms of assistance to low-income families. You simply take everybody who is getting food stamps, everybody who is on the low-income subsidy for the prescription drug benefit. You just automatically program them onto the debit card.

For low-income working families we already addressed the earned income tax credit each year for inflation. You just adjust it further for the energy price impact. What you now have is we have covered the bulk of the low-income population. Others who aren't in one of those two could apply. You have done it without creating a new bureaucracy, hardly any new administrative costs, no big amount of new paperwork, very efficient.

We would also provide some additional money, must lesser amount, to the Low-Income Home Energy Assistance Program to fill gaps that otherwise aren't filled by the rebate.

Now, recently, we have modified this proposal. So instead of just being for low and moderate-income households, it is low and middle-income households as well. That is not hard to do. We remove the earned income credit component, and we replace it with a tax credit that covers middle-income families and the working poor as well.

How far up the income scale that will go, what the exact size of the rebate would be, that is up to you. You could—depends on what proportion of the permits you wanted to vote to this mechanism. But all of the variations that we have developed have one common principle. They all fully offset the average hit on low-income consumers because climate policies need not and should not push more Americans into poverty or make those who are poor already poorer.

Now, we have been working on this for a year and a half, and we make these recommendations after careful examination of other approaches to consumer relief. I am afraid that other approaches have serious flaws. We are particularly concerned about approaches that rely on utility companies to provide consumer relief and proposals that would cut tax rates as distinguished from providing a tax credit.

Let us take the tax rate. CBO has analyzed proposals that would auction the proceeds and use them to lower tax rates across the board. What they find is the bottom 60 percent of the population is worse off, the tax reduction is less, the farther down the income scale, the greater degree. The degree to which it is less than the increase in energy prices. At the top of the income scale you get a tax cut that exceeds your income, your increase in energy prices. So that is clearly not a promising approach.

Turning now to the utility company approach, let me be very clear that I do think that allocations to utility companies for energy efficiency improvements is something that merits very serious consideration. I am distinguishing that from allocations to utility companies for consumer relief, an approach that is deeply problematic for a number of reasons.

First, utility companies do not routinely collect information on their customers' income, and, therefore, can't target it on low and moderate or lower and middle-income households. To do so they would have to set up new bureaucracies to collect income information and audit it, and they would turn to the Federal Government for billions of dollars of subsidies that would be needed to pay the cost of an administrative infrastructure that would duplicate what public programs already do.

Secondly, we have an issue of millions of renters who don't pay utility bills directly but have them reflected through the rent.

Thirdly, and particularly important, the utility company approach is aimed at electricity and natural gas bills. Over half of the impact on consumers of climate change legislation will come in other areas. Impacts on gasoline and in particular for all sorts of other goods and services, food and many other, any service that uses energy in the manufacture or transport to market is affected, you can't cover that through an allocation to the utility company.

Fourth, there is no good formula for allocating emissions among the more than 3,300 LDCs in the country. I won't take the time to do it here but—in my oral testimony but almost any formula that has been suggested results in significant inequities, in many cases particularly to low and moderate-income communities.

Fifth, limiting consumer assistance through utility companies artificially lowers households' utility bills and thereby reduces the incentives to conserve that are part of what we are trying to accomplish in the first place.

Last and most important, the approach would necessarily fail. Bear with me for a moment. Let me just try and do some basic economics. We have a cap, and we give money to utility companies, and they keep electric rates down, then you do not get as much reduction in use of electricity. But the cap is still at the same level. So if you don't get as much reduction in electricity use, you have to get a bigger reduction in other energy use. What that means is the costs of meeting the cap go up. The price of the emissions allowances ends up being higher, and consumer costs go up more for other kinds of energy while they go up less for electricity.

Bottom line we spend tens of billions of dollars giving allowances to the LDCs, and consumer impacts don't go down that much because other energy prices are jacked up in return. The bottom line is it ends up being kind of wasteful and inefficient.

Mr. MARKEY. I apologize to you, Mr. Greenstein, but you are now 3 minutes over.

Mr. GREENSTEIN. I am sorry. I got one final sentence?

Mr. MARKEY. One final sentence.

Mr. GREENSTEIN. The main form of criticism is that this would represent a tax increase. What I am proposing answers that criticism. You use the money for the broad middle class and the working poor for an offsetting tax cut. There is not net tax increase, and we protect people at the bottom. Answers the main criticism efficiently.

Thank you.

[The prepared statement of Mr. Greenstein follows:]

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Testimony of Robert Greenstein,
Executive Director, Center on Budget and Policy Priorities
House Committee on Energy and Commerce
Subcommittee on Energy and Environment
March 12, 2009

Thank you for the opportunity to testify today. The main message of my testimony is that climate change legislation can fight global warming effectively while protecting consumers if it is designed appropriately. Here is the issue in a nutshell.

Fighting global warming requires policies that significantly restrict greenhouse gas emissions. The most cost-effective ways to do that are to tax emissions directly or to put in place a "cap-and-trade" system. Either one will significantly raise the price of fossil-fuel energy products — from home energy and gasoline to food and other goods and services with significant energy inputs. Those higher prices create incentives for energy efficiency and the development and increased use of clean energy sources. But they will also put a squeeze on consumers' budgets, and low- and moderate-income consumers will feel the squeeze most acutely.

Fortunately, climate change policies can be designed in a way that preserves the incentives from higher prices to change the way that we produce and consume energy, while also offsetting the effect on consumer budgets of those higher prices. Well-designed climate policies will generate substantial revenue that can be used to offset the impact of higher prices on the budgets of the most vulnerable households, to cushion the impact substantially for many other households, and to meet other legitimate needs such as expanded research on alternative energy sources.

To capture this revenue in a cap-and-trade system, it is essential that most or all of the allowances or permits used to limit emissions be auctioned for public purposes rather than given away free to emitters. Giving away, or "grandfathering," allowances is sometimes portrayed as a way to keep down costs for consumers, but that argument does not stand up to scrutiny. Rather, if allowances are given away free to firms that are responsible for emissions, the firms and their shareholders will reap unwarranted benefits. As CBO has explained, these firms would receive "windfall profits:" they would be able to charge higher prices for their products due to the effects of the emissions cap but would not have to pay for their emissions allowances. Ordinary consumers would get no help in dealing with the strain that the higher prices put on their budgets. Greg Mankiw, former chair of the Council of Economic Advisers for President George W. Bush, has written in a similar vein that consumer prices will rise regardless of whether allowances are given free to emitters and that grandfathering the allowances would constitute "corporate welfare." There is little disagreement among economists about this effect.

Protecting low- and moderate-income consumers should be the top priority of consumer relief provisions included in climate change legislation. Those people are the most vulnerable because they spend a larger share of their budgets on necessities like energy than do better-off consumers. They also are the people least able to afford purchases of new, more energy-efficient automobiles, heating systems, and appliances. But middle-income consumers, too, will feel the squeeze from higher energy-related prices, and policymakers likely will want to extend consumer relief to them as well.

Much of the Center on Budget and Policy Priorities' work on climate change policy has focused on developing concrete proposals to shield low- and moderate-income households from increased poverty and hardship in a way that is *effective* in reaching these households, *efficient* (with low administrative costs), and *consistent with energy conservation goals.* With these goals in mind, the Center has designed a "climate rebate" that would offset the average impact of higher energy-related prices on low- and moderate-income households. That rebate would be delivered each month to very low-income households through state Electronic Benefit Transfer (EBT) systems, which are essentially debit card systems that states already use to provide food stamps, TANF, and other forms of assistance to low-income families, the elderly, and others. A rebate also would be delivered to low- and moderate-income *working* families in the form of a higher Earned Income Tax Credit (EITC).

More recently, the Center has modified this proposal to extend consumer relief farther up the income scale so it covers middle-income families as well as those who are the most vulnerable. In this proposal, a new refundable tax credit is substituted for the EITC, while the EBT delivery mechanism is preserved for very low-income households that do not file income taxes. The size of the climate rebate, and how far up the income scale it extends, can be made larger or smaller depending on the portion of the auction revenues that policymakers wish to devote to this purpose. All proposals that we have developed, however, have a common principle and feature — they all fully offset the average "hit" on low-income households. Climate-change policies need not — and should not — push more Americans into poverty or make those who are already poor still poorer.

The approach that we have designed can be linked to the climate change measures outlined in the President's budget. The President proposes instituting a cap-and-trade system, auctioning all the allowances, and using the major share of the auction proceeds for consumer relief — including about $65 billion of relief that would be delivered every year through a permanent extension of the Making Work Pay tax credit. The President also proposes using $15 billion a year for clean technology investments to facilitate the transition away from fossil fuels.

Additional measures to protect consumers beyond the Making Work Pay tax credit — including measures to protect people with very low incomes, many seniors, and others who do not pay taxes — would be necessary. This could be accomplished by combining our EBT proposal with the Making Work Pay tax credit. In addition, over time, the relief provided through the Making Work Pay tax credit would need to be increased or supplemented in order to respond to the further increases in energy costs that would occur as the emissions cap tightened. We are currently developing proposals along these lines.

Our analysis finds that a rebate approach to providing consumer relief in climate change legislation would be far superior to other alternatives that have been suggested, both for low-income consumers and for consumers farther up the income scale. We are particularly concerned about approaches that rely on utility companies to provide consumer relief and proposals that would cut

tax *rates* (as opposed to providing a refundable tax credit); these concerns are outlined later in this testimony. The approach that is closest in spirit to our approach is the cap-and-dividend approach popularized by Peter Barnes, which would use all of the allowance value for per capita dividends. We believe, however, that careful attention would have to be devoted to the delivery mechanism in such an approach to make sure that the dividend would actually reach low-income households, and we think there are better uses for the allowance value that would be consumed by making payments to consumers with very high incomes under a cap-and-dividend system in which all the allowances were used for dividends.

The next section of this testimony discusses the economics of cap and trade in more detail. The section after that discusses our climate rebate proposal in more detail. The final section discusses why the rebate approach is superior to other approaches that have been suggested.

The Economics of Cap and Trade: Fighting Global Warming Effectively While Also Protecting Consumers

Cap and Trade Is an Efficient and Effective Way to Reduce Emissions

A cap-and-trade system puts a limit (or "cap") on the overall amount of greenhouse gases — mainly carbon dioxide from the burning of fossil fuels — that businesses are allowed to emit each year.[1] Electric power plants, oil refineries, and other firms responsible for emissions of carbon dioxide and other greenhouse gases are then required to purchase permits (called allowances) for each ton of greenhouse gas pollution they emit.

Over time, the number of emissions allowances would shrink in order to achieve the substantial emissions reductions that scientists say are necessary to curb global warming. This would force the economy to gradually adapt by reducing emissions through energy conservation, improved energy efficiency, and greater use of alternative clean energy technologies.

Firms are free to buy and sell (i.e., to "trade") emission allowances. The price for carbon depends on the level at which the cap is set and the technology available to produce goods and services that use less carbon. Companies that are able to reduce their emissions easily can sell allowances to companies that have more trouble reducing their emissions.

Thus, cap and trade would give firms incentives to pursue cost-effective ways of cutting emissions. The less carbon a firm produces as part of its normal operations, the less money it must spend on purchasing allowances, or the more money it can make by selling its allowances to firms that are not able to reduce their pollution production as easily.

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[1] Like a cap-and-trade system, a carbon tax — a government-imposed charge on firms for every ton of greenhouse gas pollution they produce — uses market forces to achieve cost-effective emissions reductions. The two mechanisms operate in different ways, however. A cap-and-trade system specifies the amount by which emissions must be reduced and lets the market determine how high energy-related prices need to rise to achieve that reduction. A carbon tax does the reverse: it specifies the amount by which energy-related prices will rise, but it lets the market determine how much of an emissions reduction that price increase will cause.

Both mechanisms lead to pollution abatement and generate revenues that can be used to offset the effects of the energy cost increases that result.

Cap and Trade Generates Revenues to Protect Consumers from Higher Energy Prices

A cap-and-trade system would raise the prices of goods and services whose production and use involve the emission of greenhouse gases. But it would also generate revenues to offset the effects of these cost increases.

Consumers would face higher prices both for home heating and cooling and for gasoline, food, and other items made with or transported by fossil fuels. These higher energy-related prices are necessary to encourage emissions reductions. But they do not have to reduce households' purchasing power. That depends on whether emissions allowances are given away free to polluters or auctioned and the proceeds then used to compensate consumers.

Auctioning the emission allowances rather than giving them to firms free of charge will generate substantial revenue that can be used for a variety of purposes, including offsetting the impact of higher energy-related prices on low- and middle-income consumers. The federal government would auction emissions allowances, and firms that emit carbon dioxide or other greenhouse gases would be required to purchase the permits. If instead, allowances were given away free to polluting firms, the firms and their shareholders would be the beneficiaries. These firms would, as CBO has explained, receive "windfall profits": they would be able to charge higher prices for their products, but they would not have to pay for their emissions allowances. Ordinary consumers would get no help in dealing with the strain that the higher prices put on their budgets.

There is a misconception that giving allowances away for free to emitters would be a way to lower the costs to consumers. That is incorrect and flies in the face of the basic laws of supply and demand. A cap on emissions will limit the amount of energy produced from fossil fuels. Stated another way, it will lower the supply of energy that is produced from fossil fuels. Regardless of whether the government gives away or sells the allowances, market forces — i.e., the laws of supply and demand — will raise the price of fossil-fuel energy to the point where the amount *demanded* will fall to equal the amount *supplied*. Whether energy companies have to pay for allowances or receive them for free, they will be able to sell their products at the higher market price that results from the reduction in the available supply of fossil-fuel energy. This increase in prices is the source of the windfall profits that would go to companies that received allowances for free but were able to charge the higher price that the market would bear.

The United States will incur some economic costs to change the way we produce and consume energy in order to reduce greenhouse gas emissions. But a broad consensus exists among scientists that reducing carbon emissions is essential to protecting the planet — and our long-term prosperity. In other words, failure to act is the more costly policy economically.

Higher energy prices under a cap-and-trade system will give all consumers the incentive to conserve energy and invest in energy efficiency, while rebates make sure the typical consumer has the necessary resources to respond appropriately to those higher prices without taking a substantial hit to his or her budget.

How a Climate Rebate Would Work

To shield vulnerable households from higher energy costs in a manner that is both effective and efficient, we recommend that policymakers follow five basic principles.

1. ***Protect the most vulnerable households.*** Climate-change legislation should not make poor families poorer or push more people into poverty. To avoid that outcome, "climate rebates" should be designed to fully offset higher energy-related costs for low-income families. The bottom fifth of Americans — the 60 million with the lowest incomes — have average household income of only a little more than $15,000. Families at somewhat higher income levels also will need help in coping with the higher bills they will face.

2. ***Use mechanisms that reach all or nearly all low-income households.*** Members of some low-income households work for low wages and could receive a climate rebate through the tax code, such as through an increase in the Earned Income Tax Credit. But others are elderly, unemployed (especially during recessions), or have serious disabilities and are not in the tax system — and experience at state and federal levels shows that attempts to use the tax system to deliver relief to such households have generally been unsuccessful.[2] Yet climate rebates need to reach these poor households as well.

   Fortunately, policymakers can tap existing mechanisms to reach the large number of low-income households that are not reached through a tax-rebate mechanism because their incomes are so low that they do not file a tax return. For example, "climate rebates" could be provided through the electronic benefit transfer (EBT) systems that state human service agencies use to provide various types of assistance to many poor people. (This is discussed further below.) Policymakers could fill remaining gaps, and provide weatherization assistance, through some increase in the Low Income Home Energy Assistance Program.

3. ***Minimize red tape.*** Funds set aside for low-income consumers should go to intended beneficiaries, not to administrative costs or profits. Accordingly, policymakers should provide assistance as much as possible through existing, proven delivery mechanisms rather than new public or private bureaucracies.

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[2] Over the years, a number of states have established refundable tax credits that are available to all low-income households, including those that have no or little earnings and do not file state income tax returns. These state tax credits are most commonly designed to provide relief from state sales taxes or property taxes. In most such states for which data are available, a large portion of the low-income households that are not required to file state income tax returns fail to file for these tax credits and thus do not receive them.

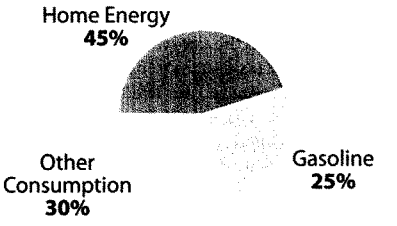
States have found it difficult to get the word out to the diverse array of low-income people who are not otherwise connected to the income tax system. In addition, many people apparently are reluctant to have anything to do with state or federal revenue agencies and do not file income tax returns if they are not required to do so.

Many of these state tax credits and the federal telephone tax rebate are smaller than a federal climate-change tax credit would be, and a larger tax credit would be expected to induce greater participation. Even so, a significant percentage of low-income households would likely be missed. For further discussion of these issues, see Robert Greenstein, Sharon Parrott, and Arloc Sherman," "Designing Climate-Change Legislation that Shields Low-Income Households From Increased Poverty and Hardship," Center on Budget and Policy Priorities, revised March 21, 2008.

4. ***Preserve Economic Incentives to Reduce Energy Use Efficiently.*** Policies that suppress price increases in an important sector, such as electricity, blunt incentives to reduce fossil fuel use in that sector and are unsound on environmental, economic, and consumer protection grounds. Such an approach keeps electricity demand elevated and puts a greater burden on other sectors to provide the emissions reductions required under the cap. The result is that emissions reductions are more costly to achieve and allowance prices are higher. Consumers may pay less for electricity but they pay more for other forms of energy and energy-related products. As a result, billions of dollars are used without achieving effective consumer protection. This is a highly inefficient approach that fails to protect consumers well from bearing increased costs.

5. ***Do not focus solely on utility bills.*** For households in the bottom fifth of the population, higher home energy prices will account for *less than half* of the hit on their budgets from a cap-and-trade system. (See Figure 1.) Furthermore, about 20 percent of the households in the bottom fifth have their utility costs reflected in their rent, so they pay for utilities indirectly, through the rents their landlords charge. Policymakers should structure climate rebates so they can help such low-income families with the rent increases they will face as a result of climate policies, as well as with the higher prices low-income households will incur for gasoline and other products and services that are sensitive to energy costs.

FIGURE 1:
Shares of Cost Increase for Poorest 20 Percent of Population by Product Category



Source: CBPP calculations based on Consumer Expenditure Survey data and CBO methodology

6. ***Adjust for family size.*** Larger households should receive more help than smaller households because they have higher expenses. Families with several children will generally consume more energy, and consequently face larger burdens from increased energy costs, than individuals living alone. Many other forms of assistance vary by household size; this one should as well.

A "Climate Rebate" That Meets These Principles

A combination of an increase in the Earned Income Tax Credit and a rebate delivered through state electronic benefit transfer systems would reach the vast majority of *low-income* households, and would do so without creating the need for a new bureaucracy or large administrative costs.

The **Earned Income Tax Credit** is a powerful tool for reaching millions of low-income working families; this committee (and Congress and the relevant administrations) relied on EITC expansions in both 1990 and 1993 to offset the impacts on low-income working families of the increases enacted in those years in gasoline and (in 1990) other regressive excise taxes. Under cap-and-trade legislation, the EITC's parameters could be designed to adjust automatically over time to reflect the increasing consumer costs that result from the steady tightening of the emissions cap. (This could

be done through a formula that ties the adjustments in the annual EITC parameters to annual data from the Energy Information Agency indicating the impact of the emissions cap on consumer purchasing power.)

If such EITC increases were all that was done, however, the result would still be a substantial increase in poverty and hardship. About half of those in the bottom fifth of the population do not qualify for the EITC in any given year, in most cases because they are elderly, have a serious disability, were unemployed in the prior year due to a weak labor market, or are raising young children and are temporarily out of the labor force. The group left out includes some of the poorest children in the country. A tax-based strategy such as the EITC consequently needs to be coupled with a form of assistance that is available to other low-income households.

The best such mechanism is the **Electronic Benefit Transfer** system that all state human service agencies use to provide food stamp assistance — and in most states, other benefits (such as child care or TANF assistance) as well — to a broad array of very low income households. A climate rebate administered through existing state EBT systems would be much less expensive to set up and administer than virtually any alternative, because states already have the EBT system in place. States could fairly easily issue a monthly rebate to the millions of low-income households that are already enrolled in either the Food Stamp Program or in the low-income subsidy for the Medicare prescription drug benefit (which reaches a large share of the low-income elderly and disabled population). Poor households that do not receive either of those benefits but that meet the eligibility criteria for food stamps and wished to receive the climate-change rebate could apply for the rebate through their state human services agency.

Some families that receive a rebate through the state human service agency also will have earnings over the course of the year and qualify for the EITC or climate-related tax credit. To ensure that families do not receive an excessive climate rebate, benefits received through the state human service mechanism would offset any climate-related tax credit for which the family otherwise would qualify. States would provide year-end information to families and the IRS on families' rebate receipt through the EBT system, and this information would be used to adjust the climate tax rebate a family would receive.

These two delivery mechanisms — an EBT climate-change rebate and an expanded EITC — could be supplemented with a smaller increase in the Low-Income Home Energy Assistance Program (LIHEAP) to help low-income households that faced particular hardship because of extremely high energy costs even after the EBT rebate or EITC boost was provided, and to provide weatherization assistance and assistance with home energy efficiency to low-income households. LIHEAP also would be a backstop that could provide another way to help reach low-income elderly people not picked up through the other mechanisms, since it disproportionately serves the elderly.

By building off existing, effective programs, this approach would succeed in reaching most low-income households. About *three-fourths* of all households in the bottom fifth of the income spectrum would be reached with little or no additional paperwork because they already participate in the Food Stamp program, the EITC, or the low-income subsidy under the Medicare prescription drug benefit. (An estimated 28 million low- and moderate-income households would receive assistance automatically because they already have an EBT account through the Food Stamp Program or receive the EITC. Another 7 million households receive the Medicare low-income subsidy and do

not receive food stamps; they could be enrolled in the rebate program either automatically or with little additional paperwork.)

We estimate that approximately 14 or 15 percent of the value of emissions allowances in a cap-and-trade system would fund this proposal.

Extending the Rebate to Middle-Income Consumers

We recommend, however, that climate rebates not be limited to low-income households — they should cover much of the middle class as well. The low-income rebate proposal I've just described could easily be modified so it also provides relief to middle-income consumers. This would be sound policy, and it should enhance prospects for the legislation's passage. Here is how climate rebates for low- *and middle*-income households would work.

Retain the EBT rebate for very low-income households. Very-low-income households that do not file tax returns would receive their climate rebate in the same manner as they would under the Center's original low-income proposal: as a monthly benefit delivered through state EBT systems. Climate rebates would be provided directly to seniors, veterans, and people with disabilities — individuals who may not otherwise need to file an income tax return — by the Social Security Administration, the Veterans Administration, and the Railroad Retirement program, as is being done under the just-enacted American Recovery and Reinvestment Act. These agencies can effectively and efficiently deliver climate rebates to Social Security, SSI, VA, and Railroad Retirement beneficiaries. (For beneficiaries of these programs who do file an income tax return, the benefits provided through the EBT system would offset any climate related tax rebate for which they would otherwise qualify.)

Create a new "climate tax credit" for other households. For all but very-low-income households and people on Social Security, SSI, VA, and Railroad Retirement, a refundable income tax credit is the most efficient way to deliver a climate rebate. Our original *low-income* proposal used the Earned Income Tax Credit for this purpose. But to reach middle-income households as well requires a different vehicle: a new, refundable "climate tax credit," instead of an expansion of the EITC. The climate tax credit would go to anyone who files a federal tax return and whose income is below the eligibility limit set for the rebate; families would simply look up the size of their credit in a table similar to the one used now for the EITC.

President Obama has proposed using the Making Work Pay tax credit for this purpose. Such an approach could work well. As proposed by the administration, that credit would be a fixed dollar amount. It would need to be modified, or a supplemental credit would have to be added, to take into account the increased impact on consumers' budgets that would need to be offset as the emissions cap tightened over time.

How big a rebate? As noted, under our original *low-income* proposal, the rebate would equal the lost purchasing power for the average household in the bottom quintile. The rebates would be scaled by family size; larger families would receive more sizeable rebates. The dollar amount of the rebate would go up over time as the emissions cap tightened and energy prices rose. Annual data from the Energy Information Administration on the impact of the emissions cap on consumers' purchasing power would be used to set the size of the rebate each year.

For a rebate also aimed at *middle-income* households, it would be more appropriate to tie the rebate's size to the average loss in purchasing power that households farther up the income scale would face. While low-income households feel the squeeze of higher energy prices more — they live on limited budgets, spend a larger share of their budgets on energy, and are less able to afford investments that can reduce their energy demand — the *absolute dollar size* of the purchasing power loss is somewhat larger at higher levels of income. Hence, a rebate set to offset the losses of middle-income families would need to be larger than a rebate targeted solely on low-income families. The rebate could, for example, be set equal to the average impact of the emissions cap on the budgets of households in the middle of the income scale.

How much would it cost? Because a rebate program aimed at middle-income as well as low-income households would go to more people and provide somewhat larger rebates, it would require more funding. The Center's low-income rebate program can be funded with about 14 or 15 percent of the total market value of the emissions allowances under a cap-and-trade program (or 14 or 15 percent of the revenues from a carbon tax). A rebate that would offset the average purchasing power loss of consumers in the next higher quintile would require about 35 percent of the total value of the allowances, and one that offset the average loss of the middle 20 percent of the population would require about 55 percent of the total allowance value.[3]

With 55 percent of the total allowance value generated by a cap-and-trade system used to fund rebates, 45 percent would remain available to meet other important needs. These include basic research and development on alternative energy, conservation efforts and energy efficiency investments, transition assistance for workers and communities harmed by the shift to a less carbon-intensive economy, adaptation to the impacts of climate change here and abroad, green job training, and offsetting impacts on federal, state, and local budgets. (Note: the Congressional Budget Office has indicated that the Treasury will need to retain approximately 25 percent of the auction proceeds to ensure that a cap-and-trade bill does not increase the federal deficit. This "25-percent offset" arises because CBO essentially assumes that the additional revenue collected from imposing a charge on emissions will result in a reduction of certain other federal revenues.[4])

Why Rebates Are Superior to Other Forms of Consumer Relief

Rebates are an effective way to deliver consumer relief. They can be provided easily through the federal tax system and state EBT systems, with no need for new agencies or bureaucracy at the state or federal level. Also, rebates protect households against the loss of purchasing power from higher energy-related prices *without* blunting consumers' incentives to respond to those higher prices by conserving energy and investing in energy efficiency improvements. Because energy-related

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[3] The total cost of rebates *as a percentage* of the emissions value is largely independent of how tight the cap is and what an emissions allowance costs. As the emissions cap under a cap-and-trade system tightens over time, this will increase the total value of the emissions allowances by raising the price of those allowances. It also will increase consumers' purchasing power losses by raising the price of energy. Since both of these increases will occur at approximately the same rate, the cost of climate rebates will stay approximately the same as a percentage of the total allowance value.

[4] Chad Stone, Jim Horney, and Robert Greenstein, "How CBO Estimates the Cost of Climate Change Legislation: Explaining the 25% Offset Rule," Center on Budget and Policy Priorities, May 13, 2008, http://www.cbpp.org/5-13-08climate.pdf.

products will cost more, households with the flexibility to conserve energy or invest more in energy efficiency will get more value for their budget dollar by taking these steps than by using their rebate to maintain their old ways of consumption. At the same time, rebates help households that can't easily reduce their energy consumption to avoid a reduction in their standard of living.

Other proposals for consumer relief generally lack one or more of these advantages and, in some cases, also pose other serious problems.

Universal "Cap and Dividend"

The proposal closest in spirit to rebates is the universal "cap-and-dividend" proposal advocated by Peter Barnes.[5] Under this proposal, all emissions allowances in a cap-and-trade system would be auctioned and the proceeds divided evenly among all Americans on a per capita basis, mirroring the concept that all Americans have an equal stake in the planet's future. The dividend would equal the average per capita loss of purchasing power that results from climate-change legislation.

There are a number of similarities between cap and dividend and the Center's rebate proposal. Both focus on consumer relief. The cap-and-dividend approach has the advantage of simplicity: everyone would secure a share of the revenues while still facing an incentive to reduce their carbon emissions. Nevertheless, cap and dividend raises several concerns.

- The primary issue is that distributing all revenues from the auction of emissions allowances as dividends would leave no money for other climate-related priorities, which would have to be funded from other sources.

- On a more technical front, cap and dividend would require an implementation mechanism. Barnes has suggested that households would receive monthly payments, preferably into their bank accounts (as is done with Social Security).[6] This would entail a significant expansion of the Social Security infrastructure or the creation of a similar administrative system. It would also require ensuring that all Americans are signed up with appropriate banking services or that a more universal system of debit cards than currently exists is created. While these are not necessarily insurmountable barriers, developing such a system would be a considerable undertaking.

- Finally, under a per capita dividend, the size of a family's dividend would be tied strictly to the number of people in the family. The evidence suggests, however, that energy expenditures increase less than in proportion to family size. (In other words a family twice as large as another consumes less than twice as much energy.) Rebates are better suited to providing a more appropriate family-size adjustment.[7]

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[5] See Testimony of Peter Barnes, before the Committee on Ways and Means, U.S. House of Representatives, September 18, 2008, http://waysandmeans.house.gov/media/pdf/110/barnes.pdf.

[6] *ibid.*

[7] The climate tax credit discussed in this paper would adjust for family size but would take into account "economies of scale" in meeting families' needs. In other words, a family of four would get a larger credit than a family of two, but not one that was twice as large, as would be the case under a per-capita cap-and-dividend approach.

Payroll or Income Tax Cuts

Some have proposed using climate change revenues to cut payroll tax rates or individual or corporate income tax rates. Such options would be far less effective than a refundable tax credit in preserving the purchasing power of low- and middle-income consumers.

In its analysis of trade-offs in the design of cap-and-trade legislation, CBO found that if all the revenue from auctioning emissions allowances were used to reduce payroll tax rates, households in the bottom 60 percent of the distribution would get a smaller benefit from the tax cut, on average, than they would lose from higher energy prices.[8] Those in the next 20 percent would come out even and the top 20 percent of the population would get a tax cut that *exceeded* their increase in energy costs. Using all the auction revenues to cut corporate taxes would be even more regressive. In contrast, using auction revenues to provide households rebates that vary by family size but do not increase as income climbs would not have these regressive effects.

The main argument for using climate change revenues to cut tax rates rests on the concept of economic efficiency. Economic analysis suggests that charging firms for emitting pollutants (as under a cap-and-trade system) could dampen economic activity. By cutting tax rates at the same time, policymakers could reduce these economic efficiency losses. But, the economic efficiency gains CBO identifies are modest, and the effect of the tax rate cuts that produce those modest gains would almost surely be to leave low- and middle-income consumers worse off, despite the economic gains, and to cause inequality in the United States to widen further.[9]

A recent study by Resources for the Future reinforces the CBO analysis.[10] The study finds that the benefits of cutting marginal tax rates would mainly go to upper-income individuals. In contrast, providing rebates to low- and middle-income consumers would result in the best outcome for those consumers.

A reduction in payroll tax rates does not fare as well as a flat rebate on distributional grounds: the size of the benefit from a payroll tax cut is higher for those with higher earnings, and seniors and others without earnings would receive no rebate. The first concern can be partially addressed by

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[8] Congressional Budget Office, "Tradeoffs in Allocating Allowances for CO2 Emissions," April 25, 2007, http://cbo.gov/ftpdocs/89xx/doc8946/04-25-Cap_Trade.pdf; and "Options for Offsetting the Economic Impact on Low-and Moderate-Income Households of a Cap-and-Trade Program for Carbon Dioxide Emissions," letter to the Honorable Jeff Bingaman, Chairman, Committee on Energy and Natural Resources, United States Senate, June 17, 2008, http://www.cbo.gov/ftpdocs/93xx/doc9319/06-17-ClimateChangeCosts.pdf.

[9] For low- and moderate-income consumers not to be worse off under a proposal that uses all of the auction proceeds to lower tax rates, the additional economic activity generated by the tax cut would have to be so great that it raised workers' incomes by enough to increase their after-tax income by more than what they lose due to higher energy prices. Credible estimates of the economic efficiency gains from using climate change revenues for tax-rate reductions show those gains to be very small, however, compared with what would be needed to produce such a result. For example, in the analysis that CBO has relied upon to estimate the efficiency gains under an approach that uses all of the auction proceeds to cut tax rates, the efficiency gains would be equal to only 0.3 percent of GDP. That is far too small to offset the net loss that low- and middle-income consumers would bear as a result of losing more from higher energy prices than they would gain from the reduction in tax rates.

[10] Dallas Burtraw, Rich Sweeney, and Margaret Walls, "The Incidence of U.S. Climate Change Policy: Where You Stand Depends on Where You Sit," Resources for the Future, September 2008, http://www.rff.org/News/Features/Pages/ClimatePolicyOptions.aspx.

switching from a cut in payroll tax rates to a rebate of payroll taxes paid up to a fixed cap. Workers above a certain modest level of earnings would all receive the same size rebate. Workers with very low earnings, however, would receive only a partial rebate, and people with no earnings would still be left out.

Those problems can partly addressed by switching to a refundable income tax credit based on the amount of payroll taxes paid (up to a maximum amount) and making seniors and people receiving federal disability benefits eligible for a similar size tax credit.[11] At that point, the modified payroll tax proposal would look a lot like our proposed low- and-middle-income rebate, although it still would leave out people who lack earnings and are not elderly or have disabilities, such as people who are unemployed during a recession and single mothers with very young children who are temporarily out of the work force. That could be addressed by including our low-income EBT proposal and by making direct payments to people receiving Social Security, SSI, VA, or Railroad Retirement.

A similar outcome could be built around President Obama's Making Work Pay tax credit. That credit would have to be paired with payments to people on Social Security, SSI, VA, and Railroad Retirement, as was done in the economic recovery legislation, and with our EBT proposal so as to include people who do not file tax returns. Finally, there would need to be a supplement to the Making Work Pay credit so there is an adjustment for family size and an increase in the tax credit as the emissions cap tightens and the consumer impacts consequently grow larger.

Energy Efficiency Programs

Measures to encourage or require investments in economic efficiency can reduce the overall demand for energy, thereby limiting the size of the hit to consumers' pocketbooks from increased energy-related prices under an emissions cap. But energy efficiency programs are not a credible *substitute* for rebates as a means of addressing the impact of climate change legislation on consumers' budgets.

There are two main reasons why. First, existing weatherization and other energy efficiency programs now operate on a small scale and would likely take years to scale up to reach a substantial portion of the population. Until now, the Weatherization Assistance Program, which helps low-income households make their homes more energy efficient through measures such as better insulation and newer appliances, has served only a few hundred thousand homes a year.[12] Even if the program is expanded to the point that it reaches 1 million households a year, which would require a huge buildup in effort, it would take decades just to reach the 37 million low-income households that are eligible for LIHEAP assistance. Rebates, in contrast, can reach tens of millions of low- and middle-income people immediately.

Second, the commonly discussed energy efficiency programs generally focus on home energy efficiency. Yet higher home energy costs account for less than half of the loss in household purchasing power that would be caused by an emissions cap. To provide full relief to households, the energy efficiency measures would have to be so effective as to compensate not only for the

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[11] Gilbert E. Metcalf, "A Proposal for a U.S. Carbon Tax Swap: An Equitable Tax Reform to Address Global Climate Change," The Brookings Institution (Hamilton Project), October 2007.

[12] See the LIHEAP Annual Report to Congress for Federal Fiscal Year 2005.

increased costs in home energy but also for the increase in the cost of gasoline and other products. That is far beyond what is realistic.

Using Utility Companies to Provide Consumer Relief

The Lieberman-Warner Climate Security Act of 2008 (S. 3036) would have assisted low- and middle-income households by routing funds through local utility distribution companies (LDCs). Some other proposals have taken this approach as well.[13] While relying on LDCs may seem reasonable at first blush in light of concerns about increased electricity bills, this approach is unsound for several reasons.[14]

First, utility companies do not routinely collect information on their customers' incomes. To target assistance at customers within a particular income range, utility companies would therefore have to set up new bureaucracies to collect and audit income information. Covering the large costs of building an infrastructure at each utility company to gather and verify income information for millions of customers would require substantial government subsidies. Such subsidies would pay for an infrastructure that essentially duplicates what public agencies already do. Making households of *all* income levels eligible for utility company assistance would avoid this particular difficulty. But that approach would spread the funds much more thinly across the population and make it far less likely that low- and moderate-income consumers would be adequately protected from higher prices.

Second, past experience suggests that utility company programs will miss large numbers of consumers. The only existing federal program that delivers assistance to low-income households through utility companies is the "Lifeline" telephone discount program, administered through local phone companies. That program reaches just *one-third* of eligible low-income households.[15] In addition, the sizeable share of Americans whose utilities are built into their rents could be left out if climate assistance were delivered primarily through utility companies.

Third, a utility company approach is aimed at electricity and natural gas bills, and hence fails to address the full impact of climate legislation on consumer budgets. With over half of the impact of climate change legislation on consumer budgets coming as a result of higher prices for a range of other goods and services, including gasoline and food, relying on utilities to deliver consumer relief would leave many low- and middle-income consumers with a large uncompensated hole in their budgets.

Fourth, routing consumer assistance through utility companies artificially lowers households' utility bills and blunts the "sticker shock" of higher bills. People who do not realize that energy costs are going up will be much less likely to take steps to conserve energy or seek out energy

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[13] One of the options included in the Dingell-Boucher discussion draft legislation on climate change released in October 2008 also would have relied on LDCs to provide consumer relief, and LDC provision figures prominently in the blueprint for legislative action issued by the United States Climate Action Partnership in January 2009.

[14] See Chad Stone and Robert Greenstein, "Why Utilities Are Not Well-Suited to Deliver Relief to Low- and Moderate-Income Consumers in a Climate Bill," Center on Budget and Policy Priorities, February 18, 2008.

[15] Matt Fiedler, "Lessons from The Telephone Lifeline Program," Center on Budget and Policy Priorities, July 18, 2008. Available at http://www.cbpp.org/7-18-08climate.pdf.

efficiency improvements. A rebate, in contrast, protects consumers' purchasing power without blunting the incentives created by higher energy prices.

Fifth, establishing a formula for allocating emissions allowances equitably among utilities would be fraught with severe difficulties. There are roughly 3,300 LDCs in the electricity sector (plus additional natural gas retail distributors not affiliated with electric utilities). As discussed above, information does not exist on the relative incomes of their customer bases, making it impossible to distribute allowances among LDCs in proportion to each LDC's share of the population being targeted for consumer relief. Making matters worse, basing the allocations to LDCs on each utility's share of total electricity delivered or total emissions — an approach often taken by legislative proposals that rely on LDCs to provide consumer relief — would shortchange utilities that serve a disproportionate number of low- and moderate- income consumers, because their consumers' per-capita energy consumption is likely to be lower than the per-capita energy consumption of more affluent households.

Sixth, a major obstacle to relying on utilities to deliver consumer relief, either through reductions in consumers' bills or through energy efficiency measures, is the uneven quality of regulation and enforcement of utilities across the states. Most utility customers are served by investor-owned utilities whose rates and practices are regulated by state public utilities commissions. Regulators have to work closely with the industry they oversee, and states vary considerably in the degree to which the regulators have successfully avoided being "captured" by the industry. In such a heterogeneous regulatory regime, it would be difficult to provide the federal oversight necessary to make sure that the federal revenues from auctioning emissions allowances are used appropriately to protect consumers and invest in cost-effective energy efficiency improvements.

Finally — and perhaps most important — this approach would fail to protect consumers effectively and would be inefficient and wasteful. Policies that suppress consumer price increases in the electricity sector, as the utility company approach would do, blunt incentives to reduce fossil fuel use in that sector. That keeps electricity demand elevated and puts a greater burden on other sectors to provide the emissions reductions required to meet the cap. The result is that emissions reductions would be more costly to achieve, allowance prices consequently would be higher, and costs for other energy sources and energy-related products would rise even more. As a result, the overall hit to consumers' budgets would be mitigated only partially — if at all — despite the federal government's having devoted tens of billions of dollars of allowance value to this effort.

Conclusion

Climate change legislation that limits greenhouse gas emissions need not squeeze the budgets of low- and middle-income families. Well-designed consumer relief can restore to these families the purchasing power they would lose as a result of higher prices for energy-related products. In addition, consumer relief can be financed with a portion of the revenues from the auctioning of emissions allowances under a cap-and-trade system, leaving significant auction revenues available for other climate-related priorities.

A new refundable climate tax credit, coupled with Electronic Benefit Transfers for the lowest-income households, would be the most effective way to provide consumer relief to low- and middle-

income households. Other proposed mechanisms suffer from serious flaws. Cutting income or payroll tax rates would not have large enough effects on economic activity to offset the fact that these approaches would be quite regressive, providing the largest benefits to higher income households and leaving low- and middle-income households worse off as a result of the emissions cap.

Filtering consumer assistance through utility companies — or relying solely on weatherization and related efforts to make homes more energy efficient — also would have very serious weaknesses, as these approaches would either bypass many families affected by higher home energy costs or provide them with inadequate relief. Moreover, such approaches would not address the increases that would occur, as a result of climate change measures, in prices for energy-related products *other than* household utilities. Both approaches also would require substantial expansions in government regulation.

Mr. MARKEY. Thank you, Mr. Greenstein, very much.

Our next witness is Mr. Steven Hayward. He is an F. K. Weyerhaeuser fellow at the American Enterprise Institute, while focusing on the environment he has worked with a wide range of public policy issues. He is also the co-author of the Annual Index of Leading Environmental Indicators. We welcome you, sir.

STATEMENT OF STEVEN HAYWARD

Mr. HAYWARD. Thank you, Mr. Chairman, and members of the committee for the invitation.

At the American Enterprise Institute we try to take the long view of things, and so my own work and the work of about seven of us right now at AEI is trying to clarify the scope and challenge of reducing greenhouse gas emissions by 80 percent from 1990, levels by the year 2050, a level of emissions it turns out that the U.S. last experienced around the year 1910, when our population was about 92 million people. But in 2050, our population will be about 420 million people, which means our per capita greenhouse gas emissions will need to be about 2½ tons down from 19½ tons today or 10 tons in 1910.

What this means in one sentence is that attaining this target will require essentially replacing almost the entire fossil fuel energy infrastructure in the United States in the next 4 decades. Now, obviously you can't make a target like that in a single leap or even a series of leaps, and so what we are trying to do is get a grasp of the various scenarios of developing and scaling up potential technologies and what policy strategies might get us there.

So the time being that we and lots of other people are talking about emissions trading, cap-and-trade, or straight up carbon tax, which like most economists we think is more efficient but obviously politically problematic. Still the seven of us at AEI have vigorous arguments about various parts of this, and it strikes me that if seven reasonably like-minded people, economists, one scientist, several lawyers, if seven like-minded people are wrestling with the problems of this, how much more difficult it is for you all in Congress with many more moving parts to worry about than we do, to wrestle with the policy.

And it is also sobering to think that even if either carbon tax or the first round of cap-and-trade works according to plan, it gets us maybe 5 percent towards that 2050 goal. I am not even sure that qualifies as a leap. It is more like two hopscotch squares. Still we have to start somewhere, and it is difficult to estimate what it is going to cost because a lot will depend on whether we auction some, half, or all the permits or allocate them for free as has been mentioned already. There is some low-end estimates if you give a lot of them away, assuming that the savings will be passed onto consumers. The caveats have already been made about that. To very high if they are auctioned and so forth.

But still, I think we should take President Obama at his word when he told the San Francisco Chronicle last year that, "Electricity rates would necessarily skyrocket," and they would pass this cost onto consumers. Well, these issues are well known. I think less well known or harder to work out are some of the what I call asymmetries in energy use, and here is where, without disagreeing

with Mr. Greenstein's proposal, I am a little skeptical that there is this problem.

There is lots of variation across the country from State to State, even within States on energy use, having to do with climate variations, you know, the source of energy, high coal States, cold States, western States that have what the Department of Energy calls fewer degree cooling and heating days. And so that means that to make a scheme work, that means you are going to have to figure out some regional and even in-State variations, which necessarily adds the bureaucracy of the matter. Not impossible but it is something that has to be wrestled with and has to be worked out.

The other thing I would mention is, very quickly, is something I left out of my prepared remarks is indirect energy use, and this is something that we have just started to publish on at AEI, one paper just in the last few days. Most of the conversation here and elsewhere on the subject is talking about, you know, utility rates and you know, the energy that goes into direct energy, electricity generation and so forth.

We have been looking at trying to calculate how much energy is used indirectly. Simple example would be the can of soup made by Campbell's or some soup company. It is, you know, a heavy thing, you know, make it, put it in the can, and then put it on a truck somewhere to get it to markets. And it turns out that our calculation is about almost half of energy use in this country is used indirectly. Pharmaceuticals use a lot of energy in their production and distribution. The healthcare industry uses a lot of energy, and we have also now done this by the income scales, and so the lowest tenth decile of income earners we estimate spend about 5 percent of their income on energy indirectly.

And so a lot of the schemes talked about here today, whether it is an energy rebate as Mr. Greenstein says, or something to the utilities as Mr. Kline says, probably has trouble reaching to those added costs that consumers will bear, and so even if we work on, you know, some scheme that keeps consumers reasonably whole on electricity rates, we are probably going to see consumers paying more for goods and services like in a manner that they will, an amount that they will notice.

Thank you.

[The prepared statement of Mr. Hayward follows:]

Statement to House Committee on Energy and Commerce, Subcommittee on Energy and Environment

Hearing on Consumer Protection Features of Climate Change Policy
March 12, 2009

Steven F. Hayward, Ph.D
F.K. Weyerhaeuser Fellow in Law and Economics
American Enterprise Institute

Chairman Markey, ranking member Upton and members of the Committee:

My work on environmental issues at the American Enterprise Institute is presently focused on clarifying the scope of the challenge of reducing U.S. greenhouse gas (GHG) emissions by 80 percent from 1990 levels by the year 2050—a level of emissions that the U.S. last experienced around 1910, when our population was about 92 million people. But as our population in 2050 will be about 420 million people, our per capita GHG emissions shall have to be around 2.5 tons (down from 19.5 tons today, and 10 tons in 1910), a level last seen in the U.S. around 1875 or earlier. *Achieving this target essentially requires replacing virtually the entire fossil fuel energy infrastructure of the United States over the next four decades.*

Obviously such a target cannot be made in a single leap, and like many other organizations and researchers AEI is trying to get a grasp of various scenarios of developing and scaling up potential technologies, and what policy choices might be effective. Emissions trading is the first step under active consideration at the moment.

It is very hard to estimate with confidence either the total cost of emissions trading or the cost to individual consumers without knowing the details of the policy, especially the issue of how many permits will be allocated according to historic emissions baselines versus auctioned, and by what means we attempt to keep consumers whole through some scheme of rebates or tax credits. Public and private sector estimates span a wide range from very low to very high, from about $600 to $1,500 per household. In general we should take President Obama at his word, as he expressed it to the *San Francisco Chronicle* last year, that "Under my plan of a cap and trade system electricity rates would necessarily skyrocket. Businesses would have to retrofit their operations. That will cost money. They will pass that cost on to consumers." Budget director Peter Orszag has reiterated this point in recent weeks.

These aspects of the issue are well known. Less well understood is what I call the asymmetries of energy use throughout the U.S. that complicate the task of ensuring equity in distributing the costs of emissions reductions. In brief, it is very difficult to design a program that will not involve, in practice, much higher costs to consumers

in some states than others. *Attempts to keep consumers whole will likely entail an income transfer from high energy using states to low energy using states, and especially from high carbon energy states to low carbon energy states.*

These distributional variations do not stem merely from different industrial, efficiency and energy source profiles of the states, but also from important climate differences among the states. Households in northeastern and midwestern states must use more energy for heating in the winter, while southern and Gulf Coast states use more energy for cooling in the summer than Pacific coast states, regardless of energy source. The easiest way to grasp this point is to compare the Department of Energy's calculations of "degree heating" and "degree cooling" days—a measure of temperature variation from the national average—for different regions and states.[1] States in the upper midwest have roughly twice the amount of degree-heating days as states on the west and gulf coasts. (See Table 1.)

State/Region	Degree Heating Days	Degree Cooling Days
U.S. Average	4,524	1,242
Pacific Coast	3,226	755
New England	6,612	441
West North Central	6,750	949
East North Central	6,498	731
Mid-Atlantic	5,910	665
South Atlantic	2,853	1,982
East South Central	3,603	1,564
West South Central	2,286	2,447
Mountain	5,209	1,308

Table 1: Degree Heating and Cooling Days by Census Region, 2007

This is one—but only one—of the drivers of differences in per capita energy use among the states. The industrial mix also plays a role, of course, as do regional transportation differences. In general the further west one goes from the eastern seaboard, the further people drive, and the longer the distance goods have to be transported.

As a first pass at grasping the disparate impact of carbon pricing on consumers in different states, Table 2 displays a comparison of energy use, average household electricity rates, and the proportion of electricity generated from coal and the proportion generated by renewables or non-GHG sources such as nuclear and hydro

[1] Degree heating and cooling days are deviations above and below the mean daily temperature of 65 degrees F. For example, a weather station recording a mean daily temperature of 55 degrees would report 10 heating degree-days.

power. Washington state, which generates most of its electricity from hydro and nuclear power and enjoys some of the lowest retail electricity rates in the nation, will not likely experience significantly higher electricity costs from emissions trading; indeed, its power suppliers might be in a position to reap some windfall profits if it call transmit power to other states if and when we upgrade our national grid. Indiana ratepayers, by contrast, will almost surely pay sharply higher rates under any scenario.

The dilemma is this: Any simple rebate scheme based on income levels, such as a vastly expanded LIHEAP, will result in an income transfer from states like Indiana to states like Washington (in the case of this particular pairing, from a state with lower median income to a state with higher median income). One can envision a more supple program taking these disparities into account and targeting through various schemes the highest cost states such as Indiana. (California consumers, meanwhile, will wonder why they aren't receiving any price relief while paying some of the highest retail electricity costs in the nation.) However, in addition to the bureaucracy necessary for such an approach (which can be relied upon to generate some unexpected results), the tradeoffs implied threaten to vitiate the policy goal; i.e., if free permit allocations or rebates are targeted at consumers, it may slow the capital formation necessary for technology upgrades. If our goal is to replace fossil fuel energy rapidly, emissions trading with equity protection may not deliver satisfactory results.

State	Avg Household electricity rates (cents/KwH)	% electricity from coal	% from renewables/non-carbon (nuke or hydro)	Per Capita Energy Consumption (million BTUs)
U.S. Average	11.47	50	25	
California	14.76	0.1	40.5	232
Oregon	8.41	8.8	57.3	301
Washington	7.74	11.6	79.3	322
Indiana	9.47	95.1	0.1	454
Ohio	10.21	84.8	13.2	340
Kentucky	8.24	95.8	0.1	469
Massachusetts	17.74	27.8	18.3	230
New Jersey	15.55	11.6	53.5	301
Pennsylvania	11.38	51.8	40.5	317
Maryland	13.84	54.3	39.5	259

Table 2: Individual State Energy Comparisons

Mr. MARKEY. Thank you, Mr. Hayward, very much.

Our next witness is Mr. Mike Carey. He is the President of the Ohio Coal Association. As the leader of a trade group with over 40 producing members, he has gained a wealth of knowledge of the coal industry. And we welcome you here today, Mr. Carey.

STATEMENT OF MIKE CAREY

Mr. CAREY. Thank you, Mr. Chairman, members of the committee. I want to thank you for the opportunity to speak to you today on the potential impact of climate change and how those proposals affect America and the middle class.

My name is Mike Carey, and I represent the Ohio Coal Association. We are a trade organization that roughly represents 40 coal-producing companies and 50 affiliated industries. In those companies we directly employ close to 3,000 individuals in and outside of the mines. The secondary jobs associated with those are roughly 33,000. It is because of these stakeholders and the thousands of Ohioans who rely on our State's coal industry for their livelihoods and the millions of Ohioans who enjoy lower-than-average electricity rates because of coal is why I am here to speak to you today.

In the coming weeks you will be asked to consider a number of proposals that purport to address the perceived manmade climate change issue. Many of those proposals offer extremist approaches that threaten the very consumer protections set forth by the U.S. Congress. You have a unique opportunity to learn from history and make your decisions based upon not negatively affecting your customers.

Fifteen years ago, roughly over 15 years ago the 1990 Clean Air Act was passed. In that time period Ohio alone as Congressman Shimkus mentioned, lost nearly 120 mines. Associating with that close to 36,000 individuals lost their jobs. When you consider the basic facts, the picture is even clearer. Coal-fired power plants produce anywhere from what National Mining Association said just a couple days ago, 27 percent of the world's electricity, to the industrialized world, which is 40 percent. If you look at the United States, it is over 52 percent, and in Ohio we are close to 90 percent. U.S. Energy Information Industry has also—or Administration has also estimated that electric rates would actually, we would need 40 percent more by 2025.

There are three core reasons that climate change legislation must be considered in the context of consumer protection. One, the effect the extremist proposals would have on our direct coalmining and affiliated jobs. Two, the effect that a loss of coal production would have on our region's employers, particularly those with energy intensive manufacturing sector. And three, the impact that eliminating or drastically reducing the use of coal as a resourced electricity would have on electric rates and on the consumers who ultimately pay them.

Some climate change legislative proposals would force us to limit the use of coal, and yet no other source can replace coal at the same cost. There are some groups, you have probably seen the commercials, that oppose coal altogether. These are also many of the groups that oppose the use of nuclear energy. Natural gas is great.

It is domestic. Unfortunately, it can be almost three times the cost of coal, and there are distribution issues.

Some continue to encourage the subsidy of alternative energy sourcing, which we apply, but unfortunately, energy sources like solar, wind don't have the capability to replace the existing fleet and also have high initial costs. While increasing the role of renewable energy is a laudable goal, it is simply not a comprehensive solution to address our Nation's rapidly-growing demand for electricity.

First and foremost proposals for cap-and-trade legislation constitute little more than a coal tax on Ohio's coal producers. Mandatory carbon emissions will bring deep, sweeping reductions in coal production and will cause much greater economy carnage and reductions in the quality of life and the standard of living of the thousands of Ohio workers who rely on the coal industry.

Coal is a major industry in the State of Ohio, and yet over the last few years we have seen our coal production remain somewhat static. We cannot afford to lose those high-paying coal jobs, particularly in these challenging times.

Secondly, coal impacts many industries like I mentioned earlier with the, with energy, massive energy-consuming industries. Cap-and-trade legislation would hurt those Ohioans who work in those industries and not just those who actually are employed in the coal mines.

But I think finally, perhaps the most important, it cannot be overstated that reducing or eliminating coal from our electricity, what effect it will have on the ultimate consumer. The human toll would be substantial. Even the bipartisan Congressional Budget Office has agreed that almost one, the lowest one-fifth of the U.S. population would suffer the worst losing about 3 percent of their take-home income. Clearly, the most vulnerable population cannot withstand this hardship.

Today low-cost electricity is a staple of life for all Americans. Further, coal-fired electricity is by far the lowest cost option available to consumers. Our message to you is that coal represents our Nation with tremendous economic benefits and even greater potential in the future.

Our industry has made significant improvements since the 1970s, but I want to leave you with one final thought. Access to reliable, affordable energy supplies is the core tenant of economic growth, and the U.S. Energy Policy must be feasible to implement economically beneficial and environmentally sound. That could be achieved without passage of unreasonable measures that would put my industry out of business, threaten job providers who need a ready supply of low-cost electricity to power their operations, and eliminate the affordable electricity that not just our region's working families but our region's individuals that are on fixed incomes have come to count on, especially during these hard economic times.

I thank you for the opportunity and appreciate any questions that you may ask.

[The prepared statement of Mr. Carey follows:]

Written Statement of

Michael Carey
President, Ohio Coal Association

Before the

United States House of Representatives
Committee on Energy and Commerce
Subcommittee on Energy and Environment

"The Future of Coal under Climate Legislation"

"The Effect of Cap and Trade Climate Change Legislation on Ohio Consumers"

March 12, 2009

Chairman Markey and members of the subcommittee, thank you for the opportunity to provide testimony today on the potential impact of climate change proposals on America's working and middle class.

My name is Mike Carey, and I serve as president of the Ohio Coal Association, a non-profit trade association representing the interests of Ohio's underground and surface coal mining producers. Our association represents nearly 40 coal producing companies and more than 50 associate members, which include suppliers and consultants to the mining industry, coal sales agents and brokers and allied industries.

It is because of these stakeholders – and the thousands of Ohioans who rely on the state's coal industry for their livelihoods and the millions of Ohioans who enjoy lower-than-average electricity rates because of coal – that I am here today to speak with you.

In the coming weeks, you will be asked to consider a number of proposals that purport to address the perceived man-made climate change issue. Many of those proposals offer extremist approaches that threaten the very consumer protections set forth by the U.S. Congress.

You have a unique opportunity to learn from our history and make decisions that will not negatively affect consumers.

In the 15 years following the 1990 passage of the Clean Air Act, which imposed drastic reductions in coal production, Ohio alone lost nearly 120 mines, costing more than 36,000 primary and secondary jobs. These impacted areas of my state that have spent years recovering, and some never will.

I can tell you firsthand that protecting consumers today means not repeating the mistakes of our past. No where is that more true than in Ohio, a state that is hemorrhaging jobs and where employers large and small are shutting their doors.

When you consider the basic facts, the picture is even clearer. Coal-fired power plants produce about 40 percent of the world's electricity – more than 50 percent of the electricity consumed in the United States, and nearly 90 percent of Ohio's electricity. The U.S. Energy Information Administration has predicted that electricity usage in the United States will increase by about 40 percent by 2025.

There are three core reasons that climate change legislation must be considered in the context of consumer protection: One, the effect that an extremist proposal would have on coal production and on those who work directly or indirectly in the industry; two, the effect that a loss of coal production would have on the region's employers – particularly those in the energy-intensive manufacturing sector; and three, the impact that eliminating or drastically reducing the use of coal as a resource for electricity would have on electric rates – and on the consumers who pay them.

Some climate change legislative proposals would force us to limit the use of coal, and yet, there is no source of power that can replace coal at the same cost. The same groups who oppose the use of coal also oppose the use of nuclear power. Natural gas is expensive, at three times the cost of coal, and it has supply and distribution issues. And some continue to encourage the subsidizing and use of alternative energy sources like wind or solar power, it is clear that these still carry with them limited capability and high costs. While increasing the role of renewable energy is a laudable goal, it simply is not a comprehensive solution to addressing our nation's rapidly growing demand for electricity.

First and foremost, proposals for cap and trade legislation constitute little more than an energy tax on Ohio's coal producers. Mandatory carbon-emission reductions will bring deep and sweeping reductions in coal production, and will wreak much greater economic carnage and reductions in the quality of life and standards for the thousands of Ohio workers who rely on the coal industry.

Coal is a major industry in Ohio, and yet coal production has remained stagnant over the past few years. The fear of restrictive Cap and Trade legislation has led to canceled coal projects across the country. We cannot afford to lose any more high-paying coal jobs, particularly in economically challenged areas of our state like Appalachia. Our industry provides miners and their families with exceptional salaries and benefits, and pays millions of dollars in taxes to state and federal governments every year. Without a doubt, legislation that places unreasonable emissions standards on electricity generation would put those jobs – and that revenue – in jeopardy.

Second, coal impacts many industries, including trucking, railroads, manufacturing and utilities. It is a key player in keeping Ohio competitive.

Cap and trade legislation will hurt not only those Ohioans in the coal industry tself, but will further damage the agricultural and chemical industries and the thousands of workers they employ. The loss of American manufacturing jobs, which depend on ow-cost electricity, also will be accelerated.

Finally, and perhaps most importantly, it cannot be overstated what reducing or eliminating the use of coal for electricity will have on consumers overall. The human toll will be substantial.

Regardless of the specific provisions of any cap and trade proposal, one thing is certain: if these measures are passed, consumers will pay more for electricity. And during an economic crisis, that's about the last thing our working families need. Even supporters of this type of plan – including President Obama himself – acknowledge there will be significant price increases for electricity customers.

Even the bipartisan Congressional Budget Office agrees. In an analysis of the effects of cap and trade legislation on American households, the CBO found "most of the cost of the cap would ultimately be borne by consumers" and that the poorest fifth of the U.S. population would suffer the worst, losing about three percent of its take-home household income. Clearly, our most vulnerable populations cannot withstand any more hardship. The CBO concluded that in a rebate system for low-income families, similar to that being proposed by the Obama administration, the cost to the nation's economy as a whole would almost *triple*.

Today, low-cost electricity is a staple of life for all Americans. Further, coal-fired electricity is, by far, the lowest-cost option available for consumers.

Our message to you is that coal presents our nation with tremendous economic benefits and even greater potential for the future. And threatening that potential would have far-reaching ramifications on our economy – and on the consumers who today are struggling toward recovery.

Our industry has made significant environmental progress since the Clean Air Act became law in the 1970s. One major reason for our improved air quality is the development and deployment of clean coal technologies – technologies being researched right in my home state of Ohio.

You as lawmakers must consider carefully the impact that climate-change legislation will have, not only on the environment, but on citizens, too. This is a human issue as well as an environmental one.

I want to leave you with a final thought: Access to reliable, affordable energy supplies is a core tenet of economic growth, and any U.S. energy policy change must be feasible to implement, economically beneficial and environmentally sound. That can be achieved without the passage of unreasonable measures that would put my industry out of business, threaten job providers who need a ready supply of low-cost electricity to power their operations and eliminate the affordable electricity that our region's working families have come to count on, especially in these difficult economic times.

Again, I thank you for the opportunity to be here today, and I would be glad to take any questions you have at this time.

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Mr. MARKEY. Thank you, Mr. Carey, very much.

And our final witness is Mr. John Hill. He is the Director for Economics and Environmental Justice for the United Methodist Church. He has worked on issues of global warming and worker justice as the Chair of the Policy Committee for the National Council of Churches, Eco Justice Working Group. So we welcome you, sir. Whenever you are ready, please begin.

STATEMENT OF JOHN S. HILL

Mr. HILL. Thank you, Chairman Markey, Congressman Upton, members of the committee. I appreciate the opportunity to testify before you today.

As the Chairman said, my name is John Hill. I work with the General Board of Church and Society, which is the Social Justice Agency of the United Methodist Church. Our church has around 11 million members across Asia, the United States, Europe, and Africa.

In addition, I am here representing the National Council of Churches, an organization that represents roughly 35 member communions, Christian communions, over 100,000 congregations and approximately 45 million people here in the United States.

Let me begin by stating unequivocally that the United Methodist Church and the National Council of Churches take seriously our call to be faithful stewards of God's earth and to love our neighbors, and we believe global climate change is a real and growing threat to creation with profound and potentially devastating environmental economic and social consequences. For over 15 years we have worked to educate and equip our members and congregations to take action to reduce our own contribution to climate change and have petitioned our government to provide strong leadership and develop domestic and international frameworks to lower greenhouse gas emissions.

In recent years the faith community has developed a set of principles on global warming, principles that represent key tenants of our faith traditions and provide the lens through which we consider potential policy solutions. Those four principles are justice, stewardship, sustainability, and sufficiency.

Justice is our first principle and for a very specific reason. God calls us to serve those living on the margins of society and to protect those individuals and communities living in poverty, whether in the United States or around the world. Quite frankly, for too long climate change advocates have minimized the potential impact of climate legislation on the poor, and opponents have used such impacts as a justification for inaction.

Neither course brings us closer to a just future, and neither serves the interests of those we are called to be in ministry with. I applaud the leadership of this committee for holding today's hearing where we can explore another way, a course the provides strong emissions reductions and protects low-income individuals and vulnerable communities. We believe a just climate policy must first and foremost contain effective and mandatory emissions reduction targets in order to prevent catastrophic impacts for the people and planet we are called to serve.

While this morning's hearing focuses on the critical issue of how climate legislation will impact consumers, as many of you mentioned in your opening statements, let us not forget the devastating impacts of inaction, rising sea levels, more intense storms, floods, droughts, and spreading disease factors affect those living in poverty, communities of color, and other vulnerable communities first and hardest. The Gulf Coast hurricanes of 2004 demonstrated all too painfully the devastating consequences that occur when storms of nature interact with the manmade storms of poverty and racism that batter daily communities in the United States and around the world.

Our churches were on the front lines and continue to provide aid and assistance to those struggling to rebuild, as we will be in every disaster that may come.

And as someone who serves a global church, I am keenly aware of the cost of inaction on my brothers and sisters in Africa. Rosemary Miega, who is a woman who founded a farming co-op in Uganda told me last year of how her growing seasons are shifting because of climate change. Now, for most of us, those of who live in the United States, particularly in cities, if the rain falls a few weeks late, there is little impact on our lives. For Rosemary and her community that shift means crop failure and famine.

Last year the African bishops of the United Methodist Church issued a call for action on poverty and recognized that we cannot separate the plight of the poor from the plight of the planet and must act now to protect both. Inaction is simply not an option for the community of faith.

But likewise, action must be centered on a vision of justice for all God's people. In developing policies we must ensure that the solutions protect the needs of the poor, that we don't push families deeper into poverty due to higher energy-related costs.

The good news is is that there are proposals such as those outlined by the Center on Budget and Policy Priorities that we believe can efficiently, effectively, and justly provide benefits to offset these cost increases for low-income individuals and families.

We support using established and proven methods to deliver benefits for low-income consumers that provide funds sufficient to offset all energy-related price increases. Mechanisms such as those outlined by my colleague from the Center could provide this benefit, and we believe could adequately address many of the valid concerns raised by Mr. Hayward with regards to indirect energy costs.

In contrast, proposals such as those put forward by U.S. cap that would use local distribution companies or other utilities to deliver a consumer rebate would ignore over one-half of the estimates cost to low-income families and require the establishment of new delivery systems and outreach programs to encourage participation.

In closing, the faith community supports strong and quick action to address the dangers of climate, while ensuring that solutions mitigate rather than compound economic injustices. We believe financial assistance for those living in poverty in the United States and international adaptation assistance for vulnerable communities abroad must be a part of any climate policy, and we look forward

to working with the committee as you develop legislation that protects God's good creation and all of God's children.

Thank you.

[The prepared statement of Mr. Hill follows:]

Testimony of Mr. John Hill
Director Economic and Environmental Justice
The United Methodist Church - General Board of Church and Society
March 12, 2009

Good morning Chairman Markey, Congressman Upton and members of the committee, thank you for the invitation to testify today. My name is John Hill and I serve as the director for economic and environmental justice at the General Board of Church and Society – the social justice agency of The United Methodist Church. In addition, I am here representing the National Council of Churches – an organization that represents 35 Christian denominations, 100,000 congregations and approximately 45 million people in the United States.

Let me begin by stating unequivocally that The United Methodist Church and the National Council of Churches take seriously our call to be faithful stewards of God's earth and believe global climate change is a real and growing threat to Creation with profound and potentially devastating environmental, economic and social consequences. For over 15 years we have worked to educate and equip our members and congregations to take action to reduce our own contributions to climate change and have petitioned our government to provide strong leadership in developing domestic and international frameworks to lower greenhouse gas emissions.

In recent years the faith community has developed a set of principles on global warming - principles that represent key tenets of our faith traditions and provide the lens through which we consider potential policy solutions. Those four principles are justice, stewardship, sustainability and sufficiency.

Justice is our first principle and for a very specific reason – God calls us to serve those living on the margins of society and to protect those individuals and communities living in poverty in the United States and around the world. Quite frankly, for too long climate change advocates have minimized the potential impact of climate legislation on the poor and opponents have used such impacts as a

justification for inaction. Neither course brings us closer to a just climate policy and neither serves the interests of those we are called to be in ministry with. I applaud the leadership of this committee for holding today's hearing where we can explore another way – a course that provides strong emissions reductions and protects low-income individuals and vulnerable communities.

We believe a just climate policy must first and foremost contain effective and mandatory emissions reduction targets in order to prevent catastrophic impacts for the people and planet we are called to serve. While this morning's hearing focuses on the critical issue of how climate legislation will impact consumers, let us not forget the devastating impact of inaction. Rising sea levels, more intense storms, floods, droughts, and spreading disease vectors affect those living in poverty, communities of color and other vulnerable communities first and hardest. The Gulf Coast hurricanes of 2004 demonstrated all too painfully the devastating consequences that occur when storms of nature interact with the storms of poverty and racism that batter communities in the United States and around the world. Our churches were on the front lines and continue to provide aid and assistance to those struggling to rebuild – as we will be in every disaster that may come.

As someone who serves a global church, I am keenly aware of the cost of inaction on my brothers and sisters in Africa. Rosemary Mayiga works with farmers in Uganda and told me last year how her growing seasons are shifting because of climate change. For most of us, if the rains fall a few weeks later there is little impact on our lives. For Rosemary, that shift means crop failure and famine. Last year the African Bishops of The United Methodist Church issued a call for action on poverty and recognized that we cannot separate the plight of the poor from the plight of the planet and must act now to protect both. Inaction is not an option for us as people of faith.

But likewise, action must be centered on a vision of justice for all God's people. In developing policies we must ensure that the solutions protect the needs of the poor – that we don't push families deeper into poverty due to higher energy-related costs. The good news is that there are proposals – such as that outlined by the Center on Budget and Policy Priorities – that we believe can efficiently, effectively and justly provide benefits to offset these cost increases for low-income individuals and families.

By using established and proven methods that provide financial assistance to consumers, we can put money back in the hands of low income families. Mechanisms such as an electronic benefits card will allow individuals flexibility in meeting their growing financial needs while ensuring that they are able to put food on their plate and a roof over their head. In addition to financial support, it will also be crucial to include efficiency measures for low income households. Weatherizing homes and replacing old appliances will help reduce greenhouse gas emissions while lowering the costs of low income consumers.

In developing these programs, it is important that the delivery mechanisms are designed to efficiently reach the highest percentage of low income consumers. We have concerns with the use of local distribution companies (LDC) and other utilities, as suggested in the USCAP proposal, as the provider for consumer rebates. These companies rarely have systems in place to identify those in need, nor would such a benefit offset all of the increased expenses low-income consumers face as a result of climate legislation. Instead, utilizing systems that are already in place to reach the most vulnerable among us provide efficient and effective ways to deliver financial assistance to those affected by climate legislation.

In closing, the faith community supports strong and quick action to address the dangers of climate change while ensuring that solutions mitigate rather than compound economic injustices. Those least responsible for the emissions that created this problem are most vulnerable to its effects. Let us not perpetuate further this injustice by forcing those same individuals to shoulder additional and disproportionate costs of proposed solutions. We believe financial assistance for those living in poverty in the United States and international adaptation assistance for vulnerable communities abroad must be a part of any climate policy and we look forward to working with the committee as you develop legislation. Thank you.

Mr. MARKEY. Thank you, Mr. Hill, very much, and that completes our opening panel.

We will now turn to the subcommittee members for questions, and the Chair will recognize himself.

I am going to go down the line, ask Mr. Kline, Mr. Popowsky, Mr. Greenstein this question. Is it a good idea to allocate free allowances to admitters? Mr. Kline.

Mr. KLINE. I would say only under the circumstances that I have described. I think absent a delivery mechanism that brings that value, assures that value goes to consumers, that the risk that was described earlier and the risks that occurred in Germany in the initial phases of the European system, where those dollars went into the earnings of utilities and others. At the same time prices were going up to consumers is the challenge, and I think what we are talking about here would avoid that.

Mr. MARKEY. OK. Thank you.

Mr. Popowsky.

Mr. POPOWSKY. Yes. The way you phrase that question the answer is absolutely not. That is you should not allocate free allowances to emitters, and by that I take it you mean the generators, the people who, the companies or the plants that generate the emissions. If you are going to allocate free allowances to anybody in the utility industry, it has to be to the folks who are regulated so that we have a way of recapturing those benefits for customers.

Mr. MARKEY. Mr. Greenstein.

Mr. GREENSTEIN. Allowances should not be allocated free to emitters. As I noted, most economists concur that that would not reduce consumer prices and would confer windfall gains on the emitters, and you would lose the resources you need for everything from consumer relief to research and to cleaner energy technologies.

Mr. MARKEY. OK. Now, the Wall Street Journal in a recent article said that the Congressional Budget Office was cited for the proposition that a 15 percent reduction in emissions would lead to increased costs for the poorest of one-fifth of households. Of course, that is only half of the story because there could be mechanisms in place in order to deal with that impact, and that could be included in this legislation.

Could you deal with that, Mr. Greenstein?

Mr. GREENSTEIN. Yes. The Congressional Budget Office estimate is that if you look at the bottom fifth of households, which is less than the bottom fifth of people because if you simply look at households by income without adjusting for family size, you get a lot of one and two-person elderly households, that the average impact from a 15 percent reduction in emissions is a $680-a-year increase in cost. We adjust for family size, so we are looking at the bottom fifth of the population, the bottom 60 million people. You get somewhat larger households, larger households use more energy, and I figure $750. They are all in the same range.

So there is a significant impact on low-income consumers if nothing is done. But as we have indicated in the proposals we have developed and as you have heard here this morning, the foreign auctions, the permits, one can absolutely offset that cost. The notion

that a cap-and-trade system inherently has to disadvantage low and moderate-income households is simply incorrect.

Mr. MARKEY. OK. Thank you.

Mr. GREENSTEIN. It depends on how it is designed, and you can design it so it does not have that effect.

Mr. MARKEY. Thank you, Mr. Greenstein, very much.

Now, let us go to energy efficiency because that obviously is going to be a centerpiece for what hopefully the consequences will be of a cap-and-trade system being put into place, that is, we will learn how to work smarter, not harder in terms of the consumption of energy in our society.

Mr. Kline, can you give us briefly your view out there in terms of the experience that you have?

Mr. KLINE. From our vantage point and our involvement in the recent work with the McKenzie Global Institute, energy efficiency is the untold resource that is out there that will allow us to offset emissions in a cost-effective manner. Or that will substantially reduce those costs, and that is because if you look across the Nation, there is an immense amount of actual negative costs, opportunities that aren't being seized, and with the proper incentives and regulatory structures those low-hanging fruit will be captured in the early years, which will help offset these costs.

In California we are spending $1 billion this year on energy efficiency, and we are delivering it at a cost of about 4 cents for the average customer. If we go out to the market to buy power from a new power plant, it is at least 9 cents.

Mr. MARKEY. Can you briefly respond to that as well, Mr. Greenstein, the economic efficiency as compared to other energy sources?

Mr. GREENSTEIN. Yes. This is an on the one hand, on the other hand. On the one hand, obviously, we want to pursue energy efficiency. On the other hand is—or the caveat is simply that we have to be realistic about how much it can do, how fast. Unlike things like the earned income credit or the mechanisms I have discussed, we don't have energy efficiency programs that, at any level of government, that serve more than very small percentages of the low-income population in any given year. The Weatherization Program, a good program, maybe gets a few hundred thousand households a year.

So we should recognize both that we need to learn a lot more about how to do energy efficiency programs on a much larger scale. It will take many years to ramp them up, and even if we are at the point in the not too distant future where we are weatherizing say one million homes a year, far beyond what we do now, it would still take under that approach about 40 years just to reach the homes of all the people that qualify for the Low-Income Energy Assistance Program, and that only affects the half of increased costs that are home utility related as distinguished from the other half of the impact on consumers.

So——

Mr. MARKEY. Mr. Greenstein, yes, my time has run out, and I thank you, sir.

The Chair recognizes the gentleman from Michigan, Mr. Upton.

Mr. UPTON. Thank you, Mr. Chairman. I think certainly as we listen to this hearing, we know that costs are going to go up, and

not only do we need to protect consumers but almost as equally important if not more is we need to protect those jobs as well, because it is no good if you just provide a subsidy to the individual households as they struggle to pay those mounting costs, whether they be direct or indirect, but if they don't have a job at the end of the day, that doesn't help them either. And that is a concern certainly that I would think most of us share.

Mr. Greenstein, you talked a little bit about your rebates, trying to shield moderate and low-income households. Do you do anything for businesses? And I want to use the example that was pretty well publicized a couple of weeks ago, I think the New York Times had a story about the cement company in California that was going to be, because of the California Environmental Laws was going to have to increase their pollution-abating controls that was going to cost $200 million to make the changes. And in essence they said they are going to go out of business, and all of their people are going to be out of work.

Do you do anything for businesses, large or small?

Mr. GREENSTEIN. Mr. Upton, our rebate proposal is designed to address consumers. Let me be very clear. Our proposal is not to use 100 percent of the revenue from auctions on consumer rebates. It is to use a portion of it, covering middle as well as low-income households maybe somewhere in the vicinity of 50, 55 percent of the permits. That would leave significant value for other purposes.

I leave to others who have much more expertise in the business aspect of this than I do as to whether——

Mr. UPTON. I am just watching the clock, so I got to stop.

Mr. Kline, what is the percentage of folks, of consumers in your area in PG&E that are in arrears for not paying their utility bills? I talked about Michigan, some of our areas, one in three households. Do you have a percentage that can't pay it based on——

Mr. KLINE. The last numbers I saw were about 7 or 8 percent.

Mr. UPTON. Seven or 8 percent. So you are well under the national average.

Mr. KLINE. That number is growing, however, but it is relatively low, and I attribute that partly to our low-income programs that build on state and local programs.

Mr. UPTON. OK. I am going to pass this chart out. I think you all, you will have it, and I will pass these down the row here as well. This is the electric power sector of coal consumption for '06, and the blue areas are particularly hard hit. We rely heavily on coal versus some areas, some of the areas that don't. When you look at some other charts in terms of per capita emitted of carbon, I know the cold States and the warm States, the northern States and the southern States are particularly impacted as well, North Dakota, I can presume might not in terms of what they have to do with heating or cooling.

Mr. Hayward, you made a very good presentation. What happens to these regions? I mean, as we try to struggle in the midwest it seems as though our area is hit harder than ever, and I note Mr. Kline, if you have a chance to comment on this as well, in a May letter to Senator Boxer, Lieberman, and Warner, the Clean Energy Group of which PG&E is a member said that any allocation must

recognize the value of low and non-emitting forms of generation and should not reward the highest emitters.

But we are in the south and the midwest because temperature for—and because of reliance on coal, you mean to say that customers in those regions shouldn't receive the allocations based on historical emissions? I would like if you both maybe answer that. Mr. Kline, maybe in response to that letter.

Mr. KLINE. I think the intent is not to punish coal by any means. I mean, we recognize——

Mr. UPTON. Well, that is what it does.

Mr. KLINE. Sir, it does that only if we apply this in a kind of mindless manner. I mean, when I talked about sustainability here, I think what I am talking about is we recognize a program can't blow up the economy, and it can't impact areas in an unfair manner. And our view is that by structuring this correctly, we can send price signals which have to happen but do it in a manner that isn't going to abruptly affect——

Mr. UPTON. All right. I want to get my last question in.

Mr. Hayward, I know I didn't give you a chance to answer, so I am going to ask you something else. You talked in your opening about where we would go if you reduce it by 80 percent by the year 2050, in essence back to 1910. So let us say we get rid of all coal. There is no more coal, generation, sorry, Mr. Carey, you are not able to answer that. So we move to gas. Fifty percent emissions is coal. How far do we miss the target by 2050 if we eliminate all coal and move to gas? What do we miss it by?

Mr. HAYWARD. Well off the top of my head I don't know the exact answer to that, but if you switched all coal to gas, that gets you about a 50 percent cut in the CO2 emissions from coal, because gas emits on a BTU basis, per unit BTU, about half the amount of CO2 as coal does.

So, you know, coal accounts for what, I think two-fifths or something of our total greenhouse gas emissions in the country, so that maybe gets you one-fifth of the way toward, you know—so in other words, you still have a long way to go.

I have gone through this about, you know, we got—right now to give one quick example, we burn about 180 billion gallons a year of gasoline and motor fuels. We have to go back to, if we are going to, you know, stay within our allegations, that has got to go back to about 30 billion gallons by the year 2050, if we are still using petroleum-based fossil fuels for aviation, trucking, all the rest.

So you have to go a long way on everything else, too, including natural gas.

Mr. UPTON. And we still don't make it.

Mr. MARKEY. OK. The gentleman's time has expired.

The Chair recognizes the gentleman from California, Mr. McNerney.

Mr. MCNERNEY. Thank you, Mr. Chairman.

I can't help but remark how stark the testimony we have seen here this morning is. Mr. Carey, on the one hand, is showing us the impact on people's lives, not only the producers but the consumers. Mr. Hill, on the other hand, is showing us what will happen if we do nothing. So we are in a position where we have to be

thoughtful. We don't want to hurt people, but we have to make change.

One of the things that struck me was Mr. Greenstein's discussion about how to allocate the money to the lowest income and the middle income. Do you think it would be reasonable to use the revenue to give a credit, say onto homeowners, for example, to use to purchase efficiency in their homes or cars? Would that be a reasonable way to use the revenue or a portion of the revenue?

Mr. GREENSTEIN. This is not something we have looked into in detail. The difficulty here, you only have so much revenue, you want to make the best use of it. So what you would need to take into account is to what degree would you be using revenue to subsidize people to make purchases they would have made anyway, and to what degree would you get increased purchases of more energy efficiency products?

Now, I guess the reason why I am skeptical of that approach is the cap itself provides somewhat of a subsidy. In other words, under the cap itself anything that uses fossil fuel becomes more expensive and vehicles or appliances that are energy efficiency or use fuels other than fossil fuel become more competitive. And so the cap itself gives the consumer a direct subsidy in a sense to move from the old style kinds of products to the new ones.

Mr. MCNERNEY. It is not a subsidy, it is a penalty.

Mr. GREENSTEIN. A penalty—it gives——

Mr. MCNERNEY. Right.

Mr. GREENSTEIN [continuing]. Them an economic advantage.

Mr. MCNERNEY. Incentive.

Mr. GREENSTEIN. Economic incentive. So what one would have to do is to say if you take into account the economic incentive the cap already gives for the purchases you want to incentivize and the degree to which you would have a loss of, if you used revenue for this from the cap, the degree you would have a loss if you would be subsidizing people for purchases they would make anyway as a result of the incentives under——

Mr. MCNERNEY. Well, a lot of people aren't going to be able to make those purchases because you are getting an incremental increase in your electricity costs or your heating costs, and the purchase of a new car is a $30,000 investment or weatherizing your home is $10,000 anyway. So we need to get something out there to give people the ability to make those purchases.

Mr. GREENSTEIN. I understand the notion one would have to an economic analysis to see if the increases in the purchases and the energy gain you—the efficiency gain you get from them justifies spending that proportion of the allowances on them.

Mr. MCNERNEY. Thank you. Mr. Kline, a simple question. Are you advocating free allocation of permits to LDCs? Is that what I heard in your testimony?

Mr. KLINE. That is correct, but let me clarify. I am not talking as Mr. Greenstein wasn't either, about 100 percent of the allowances out there. We are talking about a percentage that represents the contribution from electricity and natural gas usage.

Mr. MCNERNEY. OK. Thank you. I am going to yield back, Mr. Chairman.

Mr. MARKEY. OK. The gentleman's time has expired.

The Chair recognizes the gentleman from Louisiana, Mr. Scalise.

Mr. SCALISE. Thank you, Mr. Chairman.

Mr. Greenstein, when you are talking about the climate rebates, what level of income are you talking about there when you talk about the bottom fifth or one-fifth of the, I guess, population that would be getting these rebates? Do you have a population range?

Mr. GREENSTEIN. Well, the bottom fifth has average income of a little over $15,000 a year, and I think for a family——

Mr. SCALISE. Is your microphone on? Is your microphone on?

Mr. GREENSTEIN. Sorry.

Mr. SCALISE. Yes. There we go.

Mr. GREENSTEIN. The bottom fifth has average income of around $15,000. The top of the bottom fifth is maybe $27,000 for a family of three or four, but, Mr. Scalise, my proposal is really to incorporate the middle class as well.

Mr. SCALISE. But, I mean, at some point legislation would have to——

Mr. GREENSTEIN. Yes. So——

Mr. SCALISE [continuing]. What would that limit?

Mr. GREENSTEIN [continuing]. One proposal that we provided some assistance on which is actually in the bill that Chairman Markey introduced last year, as I recall I think there were, was a full offset of the average hit for married families up to about $70,000 a year if I remember correctly, and then I think it phased out between $70 and $110,000.

Mr. SCALISE. And so——

Mr. GREENSTEIN. And there was some benefit up to $110.

Mr. SCALISE. Right. While I oppose any energy tax and would also really strongly caution against class warfare being used to basically build in some sort of cap on any of these types of, I guess, rebate proposals, and ultimately because what it will end up doing, and we were talking about economics earlier, right now the President's budget estimates that he would generate about $646 billion out of this energy tax.

And so for the President's budget to be met, if you are exempting out one group, you are in essence going to be shifting an even higher percentage to those remaining, and I will give you an example.

A school teacher married to a police officer is going to be making on average $80,000. So that school teacher married to the police officer before would have been paying $1,300 a year more. If you exempt out that many more people, now that school teacher married to a police officer might be paying $1,600 a year more. So they actually get an increased burden and you don't accomplish, I guess, what you are trying to achieve on the bottom end because the people making below $70,000 are still going to be paying higher food prices, higher—well, according to Mr. Orszag's testimony he basically says that all energy-intensive goods would have costs added.

And so I will ask Mr. Hayward, because you had talked in your testimony about, you know, the Campbell's soup example. Number one, the school teacher married to the police officer now according to Mr. Greenstein's plan would actually be paying more because they would have to have a higher percentage if that lower percentage is completely eliminated, but then what would those people

that are making below $70 still pay on your estimate on all of these other energy-intensive products?

Mr. HAYWARD. That is a really hard question to answer because, you know, it varies from product to product and also the distance involved. I mean, one thing we have really been trying to break this down pretty finely, and one thing we think is that, in fact, the highest effect on consumers of cap-and-trade is not necessarily the cold coal States, but it might be the mountain States, partly because of the longest distances goods are transported, more gasoline consumption, things of that kind. And that was, you know, a finding that would not have occurred to us without running it through a fancy model, and we all have criticisms of our own model about this. It is one of those arguments we have.

But, I mean, we sort of broke this down by, you know, a variety of specific goods, and it looks like, you know, between ½ to 1 percent increase in the direct cost of producing and shipping certain goods, and that is just going to ripple through the supply chain in some multiplier of—it is hard to say. I couldn't begin to make a good estimate of that.

Mr. SCALISE. And obviously that same price increase that would be shifted over to that school teacher married to the police officer would also be shifted over to an even higher percentage that businesses would be forced to pay now because you still have that end $646 billion tax that needs to be raised, but now it is a smaller group of people that are paying it, so the business taxes would also go up, which would lead to even further job losses.

I guess if coal is out of the picture there for Mr. Carey, I don't know if he can respond to it, but even if coal is being used, what does that then do to even further losses of jobs?

Mr. CAREY. Mr. Chairman, Congressman, the issue is when you start looking at what I think Congressman Shimkus said just earlier when, earlier today when he said that you are actually going to pay power producers to actually shut down their power-producing facilities. When you shut down poor-producing facilities, those poor-producing facilities aren't consuming coal. If they are not consuming coal, we aren't mining coal, because we are not selling it to those power-producing facilities. So, therefore, those coalminers would be put out of business and out of jobs. Also, the ancillary of associated industries.

But I do want to say this. When you are talking about the school teacher and the police officer, you talk about a coalminer who on average in our region can make anywhere between $45 and $75,000 a year, he is not going to be able to pay that bill because he is not going to have a job to pay that bill.

Mr. SCALISE. That is a very important point. Appreciate your testimony.

I yield back my time.

Mr. MARKEY. The gentleman's time has expired.

The Chair recognizes the gentlelady from California, Ms. Capps.

Ms. CAPPS. Thank you, Mr. Chairman.

Mr. Greenstein, some critics have argued that the proposal to place a cap on greenhouse gas emissions to combat global warming represents a tax increase. However, this claim ignores the fact that a cap-and-trade program, if it is designed wisely, should also raise

substantial revenue that could be returned to consumers in order to offset higher energy costs.

You might wish to speak on that just very briefly. I do want to ask Mr. Kline a question, too. My question to you is, what might be the cost, both human, environmental, and economic of a failure to act?

Mr. GREENSTEIN. Well, a failure to act at some point, is it in 10 years, is it in 50 years, we don't know, but at some point we could have catastrophic changes in climate in the world's atmosphere that would have all sorts of dislocating economic effects that would dwarf the shorter-term, much smaller effects we are talking about from a cap.

In terms of the tax issue, what you said is precisely right. If one uses a significant share of the resources raised by auctioning the permits to rebate the money to families and particularly if, as I am suggesting, you do it through the tax code other than for people at the bottom of the income scale, a lot of people would actually end up getting a net tax cut.

I don't think I explained clearly what I am talking about here in terms of what Mr. Scalise said. I am not proposing a rebate only for the electricity or the home utility part. In the way we have designed the rebate it is designed to offset the impact on costs of consumers from everything; gasoline, other goods and services. Businesses generally that have higher costs will pass them through to consumers. One wants to cover this at the consumer level. I agree that in particular industries like coal there are larger effects, and again, we have tried to design our proposal so it does not consume all of nearly all of the proceeds so that you have proceeds left to decide what to, how to provide relief, for example, to coalmining regions.

And I agree with Mr. Hayward. There are some variations that have got to be taken into effect, and I would hope that some of the additional permits would be used to address some of the variations that Mr. Hayward talked about.

Ms. CAPPS. Thank you. Thank you very much. I—Mr. Kline, PG&E has served my Congressional District and many others for a long time, and I commend the work that your company has done. I have seen it firsthand, to implement efficiency measures. In California our energy commission has concluded that for every dollar invested in energy efficiency consumers get a $2, some have said higher, return.

My question. If allowance values were distributed to PG&E and other local distribution companies, what specific energy efficiency measures would you implement so that you could cut costs for consumers and pass that savings onto consumers?

Mr. KLINE. Congresswoman, I will give you several examples of programs that we already have in place that we would expand, and one of them is referenced in an attachment to my testimony that captures programs that utilities are doing across the country.

We have a program called Power Partners, which affects small businesses and low and moderate-income customers. We literally go in and we assess their energy usage, we change out appliances when needed, to replace them with energy efficient appliances. We do changes to the structure. This is both for renters and for owners

to make their dwellings more energy efficient, reduce bills, and make them more comfortable.

Ms. CAPPS. Excellent. I am glad this is in your statement so that it can be used.

Final question. How can LDC allocations be structured so that we can best achieve these efficiency measures? And also, see the immediate consumer benefits. I think there is a great deal to be gained by allowing consumers to see how much they are saving.

Mr. KLINE. I am happy to say that the Edison Electric Institute, the Trade Association for Electric Utilities, has created an institute for energy efficiency, and a lot of what they are doing is focused on the development of and sharing the best practices across the country. So I think you are going to find that electric and gas utilities are ready to implement these programs broadly across the country.

Ms. CAPPS. Thank you very much. Mr. Chairman, I yield back.

Mr. MARKEY. Great. The gentlelady's time has expired.

The Chair recognizes the gentleman from Illinois, Mr. Shimkus.

Mr. SHIMKUS. Thank you, Mr. Chairman.

Mr. Carey, I am sorry I missed your opening statement. I did read part of it. The Wall Street Journal had an editorial where you were referenced and actually submitted for the record 2 days ago that talked about the winners and the losers. The winners are the coastal States, shocked. I am shocked. And the losers are the midwestern States. No surprise.

Talk about the, restate for me and briefly because I do have a series of questions, the impact of job loss just on the 1990, amendments to the Clean Air Act. I have reiterated them here, not just—I have said in one coalmine 1,200 miners lost their job, multiplied by that—I know the individual who bargained for the United Mine Workers quoted to me, before the 90 amendments 14,000 jobs in just southern Illinois. Then he moved to a tri-State region, and all he had was 4,000 mineworkers left in a three-State region. Can you talk about job loss?

Mr. CAREY. Mr. Chairman, Congressman Shimkus, yes. In my statement we lost close to 120 mines and lost close to 36,000 direct and indirect jobs. Penn State University did a study that said for every coalmining job there is essentially 12 spin-off jobs. So that would be the number to which I am referring to in the 1990s. Particularly we were hard hit in the State of Ohio because of sulfur.

Mr. SHIMKUS. Yes. And talk about small town rural Ohio. These mines are in the rural areas. Are—in many of these mine locations, is there a company that comes to the amount of jobs that would be employed in a mine?

Mr. CAREY. Mr. Chairman, Congressman, the answer to that is no. The coalmining, in coalmining regions of Appalachia, if you look particularly in Ohio, western Pennsylvania, and also in southeast or in West Virginia, Kentucky, and all the way down to your State, Congressman, many of these small rural communities, the coalmining, the mines, the associated businesses that supply those mines, they are in many cases the only game in town. Not just the coalmining but also the energy producers that are using that product.

Mr. SHIMKUS. Let me move to, actually since—let me go to Mr. Popowsky, consumer advocate. How many jobs were lost in Pennsylvania after the Clean Air Amendments of 1990, in coalmining alone?

Mr. POPOWSKY. I am sorry. I don't know that figure but certainly Pennsylvania is a coal State, and I have, you know, great sympathy——

Mr. SHIMKUS. So if you were advocating for consumers and job loss, you would probably at least admit the fact that there were thousands of jobs lost in Pennsylvania through the Clean Air Amendments of 1990?

Mr. POPOWSKY. I would expect so, and let me just add. One of the latest legislative developments in Pennsylvania that I would certainly support is the establishment of a coal capture and sequestration program in Pennsylvania.

Mr. SHIMKUS. Yes, and because my time is short I don't want to hold you up, but the same answer would be for the steel industry, would it not? I mean, the coal is either the co-production aspect of steel or it is the energy related, and Pennsylvania has been hard hit since 1990, in steel production. Is that correct?

Mr. POPOWSKY. We have certainly lost thousands of steel jobs in the time I have been in Pennsylvania.

Mr. SHIMKUS. And if energy costs continue to rise, it makes it more difficult for us to compete internationally in steel production, wouldn't you agree to that?

Mr. POPOWSKY. Absolutely.

Mr. SHIMKUS. Yes.

Mr. POPOWSKY. If it is done——

Mr. SHIMKUS. I would agree, too.

Mr. POPOWSKY [continuing]. On a national basis, not a global basis.

Mr. SHIMKUS. Mr. Kline, when the California power crisis hit, I don't know, 4 or 5 years ago, your company, I do believe, and this is just going off of memory, had interruptible power agreements with major utility, not utilities but really manufacturing facilities. Is that correct?

Mr. KLINE. Yes.

Mr. SHIMKUS. And so when, with interruptible power agreements, they actually made money when they shut down their operation during the crisis. Isn't that correct?

Mr. KLINE. I think that more frequently happened further up the coast in the northwest where there were aluminum producers who——

Mr. SHIMKUS. That is exactly really what I am talking about. So they actually made money by stopping manufacturing aluminum?

Mr. KLINE. Yes. I——

Mr. SHIMKUS. Through the agreements?

Mr. KLINE. And or exceptional circumstances.

Mr. SHIMKUS. And I would submit that in the European experience of cap-and-trade, industries are making money off this shell game of a cap-and-trade, where they reduce their amount of manufacturing or close down the ability because they have credits to sell, and it is money made with no affect. Very similar to this issue of this interruptible power of past cases.

And I think that is a very dangerous precedent. I would also submit now, and I will end with this, Mr. Chairman, my time is out, is that a cap-and-trade hides attacks. I think now estimates are four-fold. We want to be clear to the public of a cost of engaging. We want to have clear transparency, not a shell game labeled cap-and-trade.

And I yield back.

Mr. MARKEY. Great. The gentleman's time has expired.

The Chair recognizes the gentleman from Utah, Mr. Matheson.

Mr. MATHESON. Thank you, Mr. Chairman.

Mr. Greenstein, when you were giving your testimony I think I heard you say that in terms of avoiding unnecessary bureaucracies to try to redistribute revenues to consumers affected, disproportionately affected by this, that you would suggest it goes to a tax cut. We use the revenues from this for a tax cut for just certain levels of income across America?

Mr. GREENSTEIN. Basically two components. One would be a broad, refundable tax credit.

Mr. MATHESON. OK.

Mr. GREENSTEIN. The tax credit can go up to whatever income level you set, depending on how many resources you want to distribute. Mr. Markey's bill of a year ago, as I said, it went up to $70,000 a year for married families and then phased down to $110,000. That doesn't capture people at the bottom of the income scale, elderly, disabled people who aren't in the tax code. What I recommend there is for people at the bottom we use these electronic benefit systems, transfer systems, debit card systems states already have, already use to deliver low-income benefits. You just program another benefit on. It is the climate rebate.

And finally, as in the recovery legislation that Congress just passed, and that recovery legislation for people who aren't in the—for seniors and people with disabilities, veterans not in the tax code, you just have in there a direct payment alongside the work pay tax cut. The people who get Social Security, veterans and the like, I would do the same thing here. You get them that payment, you do the debit card at the bottom, you do a broad tax credit for the low-income working families and the middle class, up to whatever income level you feel you can afford, and you have offset the impact on consumers for the substantial majority of the population.

Mr. MATHESON. How do you address the problem that we got 25 States that rely on coal for the majority of their electricity and 25 who don't, and we are going to have a regional difference here, and I am concerned about sort of a wealth transfer in different regions of the country.

Mr. GREENSTEIN. Yes. So there is two possibilities here. One thing, we are looking at this now. We are still in the process. One possibility which I think is probably not going to work out to be a good possibility, but we are looking into it, is if we could come up with really good data, we, I don't mean we, if the government could come up with really good data on the variation by State, you certainly could adjust the amount that each State puts through its electronic benefit transfer system on the debit cards. We would need to talk to IRS as to whether you could vary the tax credit rebate depending on the, by the State you live in.

If that turns out not to be feasible, then I think you supplement the rebate maybe. You make the tax rebate a little smaller, then you supplement it with some other mechanism such as, this is another thing we are looking into, maybe you have some kind of a block grant funding stream to States to give further protection to consumers where you target the money on the harder-hit States.

Mr. MATHESON. Mr. Hayward, in your testimony you mentioned this issue of the regional price differences. Do you have comments on this?

Mr. HAYWARD. Well, only that even within States there is sometimes substantial variation. I mean, my home State is California, and you know, a person on Monterey will use a lot less energy than a person in Fresno 200 miles away where it is a lot hotter and colder in the winter, et cetera. And so, I mean, if you are really going to be, you know, try to be fairly strict about keeping equity in mind, then it is not just the State level. Then you start slicing it down, you know, and that just starts to get pretty cumbersome and good luck.

Mr. MATHESON. Another issue I would like to raise with the panel is I know a lot of folks have been advocating rebates or funding into existing programs, i.e., weatherization. Those are good programs, but I am concerned that that does not necessarily reflect how we should target impacts on consumers in general.

And how do we figure out the right balance on that? I don't know if anybody——

Mr. GREENSTEIN. We have looked at that a great deal. LIHEAP is a very good program, and we would give some amount, I mean, this isn't magic. Our recommendation may be 1 percent of the permit value to LIHEAP. LIHEAP can't handle this on a big scale. This is a little program. It serves only one in six or one in seven of every low-income household that is eligible. It is run as a block grant. There are no national eligibility standards. So I think of LIHEAP as a supplement to the kind of system I am talking about. No system is perfect. There will always be gaps. There will be people with old homes that have higher-than-average increases in their costs, and hopefully you use LIHEAP to supplement the rebates I am talking about through the LIHEAP structure to do that.

So I definitely would include them, but it is the small piece. It is not something you are going to cover the 60 million lowest-income households or the proposals that cover the broad middle classes well, you know, over 200 million people in the country.

Weatherization, you get some of that through LIHEAP and some through the separate Weatherization Program. I certainly think that is worth doing again. You have to look at what is the, you know, can you, for example, actually get the program to weatherize more than 1 million homes a year. It is currently much smaller than that. So, you know, you would want to really see what you can effectively and efficiently do through those programs, but both LIHEAP and the Weatherization Program I think should get something. Probably relatively small percentages of the permits but something significant.

Mr. MATHESON. OK. Thanks. Mr. Chairman, I yield back.

Mr. MARKEY. The gentleman's time has expired.

The Chair recognizes the gentleman from Texas, Mr. Burgess.

Mr. BURGESS. Thank you, Mr. Chairman.

Mr. Hayward, let me just ask you because you have the discrepancy question laid out in your testimony. Now, in Texas it seems like we have many more cooling days that are necessary for low-income households than we do heating days, and we never seem to come out on the correct end of that equation, and yet there are more deaths in this country, heat-related deaths every year than there are cold-related deaths.

So I, forgive me if I am a little skeptical that the LIHEAP is in someway going to be the redistributionist's dream of getting the tax, can we call it a tax? Well, the money collected under cap-and-trade, tax-and-trade, we can get that to the people that actually need it.

Mr. HAYWARD. Yes. I am not quite sure what your question is.

Mr. BURGESS. Well, we don't—I will just say in Texas we never fare well in this light. We talk about LIHEAP in this committee, and we never come out on the correct end of that, and yet at the same time if you just look at the public health hazard from heat-related deaths versus cold-related deaths, heat-related deaths are far in excess of what happens to people—we lose more people from heat-related deaths than we do from cold-related deaths.

Mr. HAYWARD. That may be true in Texas. Well, two comments. One, I have no expertise on the way this funding formula works for things like LIHEAP or similar programs, so I can't comment on that.

Texas—two more comments. Texas, of course, is a different world when it comes to energy, of your own grid and own system. It is also its own little world that way.

The final point, and so I have, you know, limited knowledge on that. The final point is it may be true in Texas that heat deaths outnumber cold deaths, although the data I have seen is that heat deaths in Dallas, for example, I have looked at have been declining for years because people are generally getting wealthier on average, and there is more air-conditioning even for low-income people. For the country as a whole there is actually more cold-weather-related deaths than heat-related deaths. And as I said, it may be different in Texas, but Texas is——

Mr. BURGESS. Well, France had that big spike a few years ago when they were unprepared for it. Chicago——

Mr. HAYWARD. Right.

Mr. BURGESS [continuing]. Has had a couple of big spikes.

Mr. HAYWARD. If you look at World Health Organization data for Europe and the U.S., Canada, you actually have more cold-related deaths. This is one of those counter-intuitive things that most people aren't aware of.

Mr. BURGESS. Well, nevertheless, we never come out correctly on the LIHEAP formula in the State of Texas. I have never been successful in advocating for my low-income residents if they need more help during the cooling part of the cycle than they do the heating part of the cycle, and we never seem to be able to get those funds to where they are actually needed. So I am very skeptical of us being able to redistribute stuff where it needs to go.

Mr. Greenstein, if I could ask you, I am not sure I understand how this electronic benefits transfer is actually going to work, and

one of our big fights during SCHIP, the State Children's Health Insurance Program, a few months ago or really for the past 18 months, is there are 800,000 children according to CBO, Congressional Budget Office, estimates that just simply are outside the system who should be inside the system but are outside the system because they are hard to find; single-parent homes, they move around a lot. These are people who are unlikely to have a place in which to deposit the benefits transfer if, even if you have that in place.

But yet these are the individuals who are going to be most hurt by the fact that they have now higher heating and cooling bills under a cap-and-trade scheme.

So how are we going to capture the people that are probably in Mr. Hill's, included in your mission statement on your Web site, how are we going to capture those folks and make certain we are not hurting them with this tax?

Mr. GREENSTEIN. That is precisely what proposal I am outlining is designed to do. These electronic benefit transfer systems already exist. Every State, your State of Texas has been running them for years.

Mr. BURGESS. Let me just interrupt, because my time is going to grow short. The current 47 million estimated uninsured in this country, 20 percent according to some estimates have Medicare aid and SCHIP available to them, and they just simply don't take it. They don't sign up for it.

Mr. GREENSTEIN. I understand. What we are suggesting is every—a lot of these people are on food stamps. Everybody who is on food stamps, all the elderly and disabled people who, low income who get the drug subsidy for the Medicare drug, they are automatically just put on the debit card system that States already operate. They already—and then additionally to the degree that there are working poor people, a lot of the people that aren't signed up for SCHIP are working poor. They file tax returns, they get the earned income credit. When you put those two together, you have a relatively small proportion of the low-income population you haven't reached. We would have to do outreach and urge them to sign up.

Mr. BURGESS. But what about in a State like Texas where we have a significant number of people who fall between the cracks because they are in the country without the benefit of a Social Security number? And they are inherently hesitant to sign up for these types of programs for fear that someone will discover they don't have a Social Security number. How are they going to be made whole in this equation, or are we even going to try?

Mr. GREENSTEIN. That is a very good question. I think as we envision that Congress would need to determine in designing this what the rules are for this rebate. Do you need a Social Security number, what are the requirements? Whatever the requirements are people who meet them, if they are not already in one of the programs where you are automatically put on the debit card, you could go and apply and enroll.

But you are getting into a question that is sort of beyond what I have a specific proposal on. It is kind of what you all decide you want to do with regard to who is eligible for the consumer com-

pensation and whether they—what requirements they have to meet with regard to things like Social Security numbers.

Mr. BURGESS. But if we don't meet the needs of that portion of the population, again, Mr. Hill's mission statement on his Web site of economic opportunity and security for all, is not going to be met.

Now, I grant you, we should do something about the problem we have with immigration in this country, the fact that we don't is a serious problem. We can't fix our healthcare system until we do, but this, we are opening the door to significant other problems with this tax that you are talking about creating, and it will hit this portion of the population disproportionately.

I yield back, Mr. Chairman.

Mr. MARKEY. The gentleman's time has expired.

The Chair recognizes the gentleman from Washington State, Mr. Inslee.

Mr. INSLEE. Thank you. While we have been having this hearing I got a little blurb on my Blackberry that said they just got a report in California that climate change will cost the State of California somewhere between $2.5 and $15 billion a year. So there is a cost of, if we do what some suggest we do here, which is nothing, we are going to have costs associated that particularly will fall on lower-income people.

The best evidence that I have seen comparing the costs of that scenario, which is an inaction scenario, to an action scenario is the Stern Report out of the England, and it suggests that we will have five times more cost on low and high-income people if we do nothing, compared to if we do something.

Does anybody—so does anybody have any other evidence to suggest that figure is wrong, that there is a different analysis? Does anybody have any other better assessment of this?

Mr. KLINE. Sir, I would say the one piece of analysis I have seen that was done in California is on an integrated basis by Berkley and Stanford, is that the immense affects in California would occur primarily through water, which would have a huge impact on, if the State were very hydro-dependent as I know you are, and an immense cost due to fire and to storms.

So the costs were substantially greater than any cost that could be put together for action.

Mr. INSLEE. Well, the reason I point this out is I think it is very important for us to address this issue, but I just want to point out that it is going to be worse, it is just really clear. It is going to be worse for our constituents. It is going to cost them more money to do nothing in this chamber than to do something.

I want to ask Mr. Greenstein about the ideas about sort of cash cushions for low-income folks. You have suggested some very intriguing ways to do that. How do we balance that against the idea that we ought to be making investments in the efficiency to reduce those low-income folks' energy costs over time?

I have to say I do have some concern that if we rely just on a cash cushion as opposed to an efficiency investment that will lower their—that will clearly give us more bang for the buck, because clearly these efficiency investments actually reduce costs, they have a positive net economic return. So I think it is very clear that if we can help a person in a low income get a weatherized home, that

same expenditure will save them a lot more money, be a lot bigger cushion over time compared to just say cash distribution.

How do we oppose those, realizing it is more difficult to do some efficiency measures?

Mr. GREENSTEIN. I don't think it is an either or. Again, I am not proposing a cap and dividend where all the money goes out in cash payments. I am proposing a portion of it. I do think energy efficiency should be one of the uses of the remaining auction proceeds.

And this all fits together because the way we envision the rebates working, they are tied to how much energy costs go up in the economy, which will be reflected in the price of the permits. The more effective we are on efficiency, the less the price of the permits will go up, and the smaller the cash rebates will be to the people that I am talking about. The two—what you are talking about and what I am talking about, they really fit together. The one caveat, I mentioned earlier, is that most energy efficiency programs like Weatherization now operate on a pretty small scale. We need to make them bigger.

But it is not like overnight or in 5 or even 10 years that we can weatherize the home of every low and moderate-income person in the United States. And even if we weatherize a million low-income homes a year, it would take about 37 years to weatherize the homes of everybody eligible for——

Mr. INSLEE. So what is the best, if we do want to make a substantial investment in efficiency for low-income people, what is the best mechanism to do it? A voucher program? A some kind of cash or other infusion to distributors that somehow we mandate is used for efficiency? What is the best system? That is an open panel question to the whole panel.

Mr. GREENSTEIN. This is something we are still looking at. I frankly don't think the answer is crystal clear, and I do want to clarify. I have been very critical, and I am very critical of giving free allowances to the LDCs to lower electricity rates. Actually, we are going to get more incentive for people to use, for example, some of the rebates I am proposing for efficiency if they feel the sticker shock of the increase in rates.

But I want to distinguish that and listen carefully to Mr. Kline, from what he was talking about in terms of energy efficiency. It may make sense to give allocations to the LDCs for energy efficiency.

Mr. INSLEE. Could I just real quickly ask Mr. Kline, is there a way to do distributions to distributors or utilities, and in fact, know that they are going to be used for efficiency?

Mr. KLINE. Absolutely. You can mandate that those dollars be used and reporting accordingly. So it is going to be transparent. You are going to see the numbers on an annual basis of achievement, and you are going to be able to judge if it is working.

Mr. INSLEE. It is a little tough on some planting issues, but thank you very much.

Mr. MARKEY. OK. The gentleman's time has expired.

The Chair recognizes the gentleman from Vermont, Mr. Welch.

Mr. WELCH. Thank you. I want to—I was impressed with the testimony of Mr. Carey. I am from New England. We don't have coal much there, and it is just the luck of the draw where we live. But

the point you make about the jobs, about the economy are compelling, and it is just a matter of whose ox is being gored.

On the other hand, there is a lot of sentiment in Vermont, and maybe it is because it is easier for us that we don't rely on coal to really focus on this question of global warming.

And what I am trying to understand is given the responsibility you have towards those coalminers and your industry and appreciate the risk of any plan that has a tax or a cap-and-trade system, is it your view after you assess all of that that the harm that would be done by taking some action, however well intentioned, to the people that you represent is a cure that would be worse than the disease?

Mr. CAREY. Mr. Chairman, Congressman, you know, first I want to kind of address your question and kind of answer what I didn't have an opportunity just to answer just a second——

Mr. WELCH. Yes, and keep in mind we don't have a lot of time.

Mr. CAREY. The first thing is is where is the information coming on the true cost of global warming on any State and on any given community.

Mr. WELCH. OK. So let me stop you here, because that is what I am trying to understand.

Mr. CAREY. Right.

Mr. WELCH. You dispute that?

Mr. CAREY. Right. I do dispute that, because I think you have to look at the sources. I think the other question is is what is the true economic cost and the social cost behind not having reliable, affordable, and increasingly clean energy.

Mr. WELCH. Right. So then there is a big risk is what you are pointing out.

Mr. CAREY. There is a huge risk.

Mr. WELCH. But do you, what is your view on the environmental threat?

Mr. CAREY. I think it is key to, that we continue to research in clinical technology, which is carbon sequestration. I think that any proposals that we have out there whether there be some type of safety valve legislation so there would be a certain level of cost that would be associated with any type of—and you can't, you have to separate. You have to——

Mr. WELCH. I want to understand this because I think if I am fairly summarizing your view, there is a big cost that is associated with taking action, whatever plan we advance, that may be more costly than whatever benefits occur, and you want more research, and you have some skepticism about the environmental impact compared to other impacts.

Mr. CAREY. Mr. Chairman, Congressman Welch, I think what I have heard from this panel is how we are going to protect these low-level consumers. Who is going to protect them? It is going to be the taxpayer. It is going to be the individuals that are paying the electricity rates, whether it is in small business, whether it is in heavy manufacturing, whether it is just the people that I represent that go in the mine every day. They are not looking for a handout, Congressman. They are looking to be able to provide——

Mr. WELCH. Oh, no. They want to work, and listen, they do hard work, you know, the folks who go in those mines and bring that

coal out. That is tough work. There is no question about it. I mean, there is just, and there is always disruption when you are going to make a transition from a way of doing business to a new way of doing business.

Do you have any concrete—let us just say for a minute you were faced with the likelihood of there being action on a cap-and-trade or a carbon tax. Are there any concrete steps you would recommend that would mitigate the impact on your workers and your miners, your companies?

Mr. CAREY. Mr. Chairman, Congressman, it would be hard for me to advocate for anything that I disagree with, but what I would say, Congressman, is any time, there has to be a level of practicality.

Mr. WELCH. Right.

Mr. CAREY. There has to be a level, you know, I am hearing about, you know, I have heard in testimony today that, you know, well, we got to look how this helps or how this would affect——

Mr. WELCH. Right.

Mr. CAREY [continuing]. The coal communities. Well, that, you know, it is very easy for us to sit up on this——

Mr. WELCH. Yes. OK. No. I appreciate——

Mr. CAREY [continuing]. Table and say that.

Mr. WELCH [continuing]. Your comments and only because I only have limited time I am going to go to Mr. Greenstein.

Mr. Greenstein, you raised a red flag about proposals to reduce the impact of climate change legislation on consumers' budgets through policies that would provide permits to utility companies, and that is one of the proposals that some folks favor, relying on the utility companies to keep their bills down. And obviously, that is where consumers pay a big bill, hits them hard, and why do you think that would be a problem, basically providing the utility companies opportunity to lower those bills?

Mr. GREENSTEIN. As I mentioned, I think it might be a good idea for delivering energy efficiency, but in terms of doing that as a way to offset the impact on consumers' budgets directly rather than through rebates, and this is for both low and middle-income families, I think it would be a large mistake for a variety of reasons.

Let me just mention two. One, we have over, about 3,300 LDCs in the electricity sector alone. How do we know how many permits to give each LDC? Most of the proposals say, well, you allocate them based on electricity use. Higher-income people use more electricity per capita than lower-income people, so we would overcompensate in areas.

But I think the two biggest problems are that it would reduce incentives to conserve, and that frankly it wouldn't effectively protect consumers. The premiere environmental think tank is resources for the future. RFF in a paper that came out last summer explained that if you gave free allowances to the electricity sector, to the LDCs to lower electricity rates, that in order to hit the emissions cap, prices for other energy products would have to go up more. So you would spend a lot of money, but you would have a partial affect at best on consumers' budgets. So it would be a very inefficient way of doing it.

Mr. WELCH. OK.

Mr. GREENSTEIN. I think a better way is you give people the rebates, you don't artificially depress their energy bills. The whole point is to have the energy bills go up in order to create incentives. And then you supplement that with things like efficiency, where I think the LDCs can be very important.

Mr. WELCH. OK. Another question. The policy choice, does it matter whether you give emission allowances free to energy companies and other emitters or auction them?

Mr. GREENSTEIN. You need to auction them. Consumer prices——

Mr. WELCH. Why?

Mr. GREENSTEIN [continuing]. Economists say that consumer prices will go up either way, as a result of which the free giveaways to the emitters effectively gives you, gives them windfall profits and means there are no resources to help consumers to fund alternative energy research. If one can—I am not an expert on this, if one can come up with the appropriate remedies to mitigate the pain in coal communities, whatever they may be, you need the resources to do these things.

Mr. WELCH. OK. Thank you.

I yield back.

Mr. MARKEY. Great. The gentleman's time has expired, and all time for this hearing has expired. I think we have really been benefited by the testimony from this panel. We are right at the heart of the matter here in this discussion. We know we have a big problem. Global warming is real. The planet is running a fever. There is no emergency room for a planet, so we have to act in preventative ways in order to make sure that the problem does not get worse.

So we have to figure out something here that helps to deal with the impact of the actions we have to take in order to protect the planet, and your testimony today has helped us a lot in helping to frame those issues. Thank you.

This hearing is adjourned.

[Whereupon, at 12:30 p.m., the subcommittee was adjourned.]

[Material submitted for inclusion in the record follows:]

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April 21, 2009

Chairman Henry Waxman
US House of Representatives Committee on Energy and Commerce
2125 Rayburn House Office Building
Washington, DC 20515

Dear Chairman Waxman:

Thank you again for providing me with the opportunity to appear before the Subcommittee on Energy and Environment at the March 12, 2009 hearing entitled "Consumer Protection Policies in Climate Legislation."

Attached, please find a copy of the responses which have been sent separately to Representatives Barton and Upton.

Please do not hesitate to reach out to me or my staff if we can be of any further help.

Sincerely,

Attachments

1) Could you explain why allocating emission allowances to LDCs and instructing those LDCs to use proceeds from allowance sales to mitigate consumer costs would be a superior policy decision compared to federal allowance auction that directs eh proceeds toward national healthcare costs, wealth-redistribution mechanisms or other federal expenditures?

We believe that providing allowance value for consumer benefit via regulated local distribution companies (LDCs) will both help to mitigate overall costs of a climate protection program to electric and natural gas consumes while at the same time advancing the overall objectives of the program, including, for example, increasing energy efficiency, reducing demand, and accelerating the deployment clean, distributed generation.

We believe the advantages in relying on LDCs for returning allowance value to electricity and natural gas consumers include:

- LDCs are subject to well established state regulatory oversight, ensuring that the value of the allowance allocation would fairly and transparently benefit consumers.
- LDCs have experience managing consumer benefit programs such as low-income assistance and energy efficiency programs. PUCs might also decide to set prices that are deemed equitable to all classes of consumers. These pre-existing programs and mechanisms provide a means to quickly, effectively and transparently deliver allowance value to consumers.
- LDCs and their contractors have established relationships with their customers to service their homes and businesses, conduct energy audits, and meter and bill for consumption each month. These relationships will enable LDCs to identify and effectively and efficiently deliver allowance value to consumers.

2) You mentioned in your testimony that PG&E is a member of the Clean Energy Group. In a May 2008 letter to Senators Boxer, Lieberman and Waxman the Clean Energy Group said that "many allocation must recognize the value of low- and non-emitting forms of generation and should not reward the highest emitters." The highest emitters are in the South and Midwest, where customers are dependent on coal.

   a. Does this mean that you believe that customers of those regions of the country shouldn't receive allocations on the basis of historical emissions?

No. We recognize that all customers will need to be protected during the transition to a low-carbon economy, no matter the emission profile of the utility serving them. As stated in the U.S. Climate Action Partnership's *A Call for Action*, "An emission allowance allocation system should seek to mitigate economic transition costs to entities and regions of the country that

will be relatively more adversely affected by GHG emission limits or have already made investment in higher cost, low-GHG technologies, while simultaneously encouraging the transition from older, higher-emitting technologies to new lower-emitting technologies."

b. You are a member of EEI. Doesn't EEI support that allocations be split between base-year emissions and retail sales? Doesn't that reward some of the highest emitters? Can you reconcile these policy positions?

We believe that these positions are consistent, in that the EEI split both recognizes higher-emitting parts of the country, like the South and Midwest , that are reliant on coal and parts of the country that have already pursued opportunities to deploy energy efficient, lower-emitting technologies. We believe the EEI position strikes the appropriate balance. In fact, the Clean Energy Group released a document in late March titled *A Proposed Framework for Reducing electric Sector Greenhouse Gas Emissions in the Context of a Comprehensive federal Climate Change Program*, in which it recommended that allowances allocated to LDCs for consumer benefit be done by "distributing half of the allowances based on a company's hare of electricity sales (adjusted for demonstrated energy savings) and half based on historic emissions."

3) You mention a variety of ways the LDC might spend allowance value – weatherization, efficiency, and renewables, for instance. Won't this mean that customers won't see the full cash value of allowances allocated to LDCs? Do you think you're in a better position than your customers to decide how to spend this money?

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April 21, 2009

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Ranking Member, Committee on Energy and Commerce
US House of Representatives
2125 Rayburn House Office Building
Washington, DC 20515

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April 8, 2009

Henry A. Waxman, Chairman
Committee on Energy and Commerce
2125 Rayburn House Office Building
Washington, DC 20515-6115

Re: March 12, 2009
Hearing Questions

Dear Chairman Waxman:

Enclosed please find responses to the questions from Ranking Member Barton and Representative Upton that you forwarded to me regarding my testimony before the Subcommittee on Energy and Environment on March 12, 2009. Please note that these responses represent my own views, as Consumer Advocate of Pennsylvania, and do not necessarily represent the position of the National Association of State Utility Consumer Advocates (NASUCA) on whose behalf I also testified at that hearing.

I would also like to take this opportunity to thank you and Chairman Markey for inviting me to testify at this hearing. I hope that I and other NASUCA members can continue to be of assistance to you and your staff as you draft legislation on these issues of critical importance to all electricity consumers.

Sincerely,

Sonny Popowsky
Consumer Advocate

cc: Earley Green, Chief Clerk

110728

The Honorable Joe Barton and the Honorable Fred Upton

1. **What do you say to the proposition that the best consumer protection is a good job in a growing and thriving economy?**

    a. **Are you concerned about the coal industry and related industries shedding well-paying jobs in Pennsylvania?**

I agree with the proposition that the loss of employment can have a catastrophic impact on individual consumers and will also have a negative impact on the economy of Pennsylvania. The coal industry is still important in Pennsylvania and coal-fired electric generation serves a large share of our power needs.

It is therefore critical, in my view, that any federal effort to address global warming should include support of technologies that will enable the continued use of our coal resources. In particular, I think we should pursue carbon capture and sequestration (CCS) as a way of providing economical coal-based power with greatly reduced carbon emissions.

I would note that legislation has been introduced in Pennsylvania that would support the development of CCS projects and would require the inclusion of CCS generation as part of our Pennsylvania Alternative Energy Portfolio Standard.

2. **You discuss using allowances to local distribution companies which will support rebates and so forth to consumers. Do you prefer using the LDCs to hold the money in trust for consumers and spend the money a certain way (on weatherization, energy efficiency) or do you prefer allowing consumers to receive the rebates directly and making up their own minds for how to spend their money?**

    a. **Mr. Greenstein and Mr. Hayward both raised issues about relying on LDCs and utilities to provide equitable consumer protections. What is your response to their criticism?**

I think it would be appropriate to utilize these revenues for both customer rebates and for cost-effective energy efficiency programs that will reduce customer bills over time. Customer rebates will help moderate the impact of generation price increases in the near term; cost-effective energy efficiency programs are probably the single most beneficial way to reduce the costs to consumers of carbon legislation in the long term.

The criticism of relying on LDCs to provide consumer protection would be correct if the LDCs were not regulated by state public utility commissions. But in fact, all of our local distribution utilities remain monopolies that are either regulated by the states (in the case of investor-owned utilities), or are publicly or consumer-owned (in the case of public power, municipal, and rural

cooperatives). This distinction is critical, particularly in states like Pennsylvania, where local distribution companies are regulated, but generation companies are not. The benefit of allocating allowances to LDCs – and not to deregulated "merchant" generators – is that the value of the allowances can be retained for the benefit of the consumers of each utility.

3. You testified that if unregulated utilities were given free emission allowances, they would pass on the opportunity cost of using these allowances to consumers. However, if the allowances are purchased at auction, or through some other mechanism, won't that same cost still be passed on to the consumer?

Yes, if allowances are auctioned, the cost would be passed through to consumers. The difference is that the benefits of the auction proceeds could be flowed back to consumers by the entity that conducts the auction. Theoretically, that entity could be the regulated local distribution companies, the states (as in RGGI), or the federal government. The impact would be the same as long as the proceeds of the auction are flowed back for the benefit of the consumers who pay for the costs of the emission allowances in generation rates.

This would not be the case, however, if the emission allowances are given to unregulated generators. The unregulated generator would receive a free allowance, then charge the opportunity cost as part of their market-based generation price, and simply walk off with the windfall profit.

April 20, 2009

Rep. Joe Barton
Rep. Fred Upton
House Committee on Energy and Commerce
2125 Rayburn House Office Building
Washington DC 20515-6115

Dear Rep. Barton and Rep. Upton:

I write in reply to your queries regarding my testimony before the Subcommittee on Energy and the Environment March 12 hearing on consumer protection in climate change legislation.

Please allow me to frame my answers to your particular questions with a general observation. There appears a fundamental contradiction in the approach embodied in the Waxman-Markey "discussion draft" that cannot be reconciled, namely, the desire to make carbon energy substantially more expensive, but not to have anyone pay higher costs because of it. The greater the rebates to industries and individual consumers, the less effective the program will be in reducing emissions. It is not clear what the point of the program is if it does not raise carbon prices across the entire economy. The idea of keeping consumers whole makes a much sense as raising the cigarette tax to reduce smoking, but rebating the tax to smokers. It appears its greatest effect may be in expanding a redistributive bureaucratic apparatus, and creating new Wall Street markets for trading artificially created financial derivatives (carbon default swaps?).

As to your specific questions:

1. In your testimony you discuss a wealth transfer from states like Indiana to states like Washington under a cap and trade system. Would job losses be disproportionately concentrated as well?

Mostly likely. Answering this specifically depends on the energy-intensity and energy sources of the economy of a specific state. States with high-carbon (coal) energy and high-intensity industries such as steel, chemicals, and heavy manufacturing will feel a significant burden from higher costs of production, while

industries in states with low-carbon energy (Boeing aircraft manufacturing in Washington state for example) will feel less of a burden.

A specific example is aluminum manufacturing and processing—an energy-intensive industry. Kentucky, Indiana, and West Virginia account for 25 percent of the total aluminum output of the U.S., and about 20 percent of total jobs in the industry. (Average aluminum industry wage in these states is about $48,000.) Sharply higher energy costs for the aluminum industry in these states is certain to erode its competitiveness compared to low-wage, cheap-energy nations such as India that are rapidly expanding their aluminum industry.

A Charles River Associates (CRA) economic analysis of similar previous proposals, such as the 2007 Bingaman-Specter Low Carbon Energy Act and the Lieberman-Warner Climate Stewardship Act, estimated net national job losses at about 5 million (that is, 5 million fewer jobs than in the absence of artificial carbon pricing) Most relevant is this judgment:

> Job losses, although pervasive, would be distributed unevenly. Some industries are more energy intensive than others. In some cases, like commercial transportation, energy intensive activities are geographically widely dispersed. In other instances, like energy intensive manufacturing and petroleum refining/petrochemical production, activities are more geographically concentrated. The Mississippi Valley, the Midwest, Texas and Oklahoma and the Southeast are important centers for these industries. The model results indicate that these regions would be disproportionately affected though all regions would be adversely impacted.[1]

It is worth noting that the EPA's economic analysis of the same bills, while finding a smaller overall economic cost, agrees that the impact will be larger in the Plains states:

> The largest GDP and consumption impacts are in the Plains region. (This is driven by among other things, regional differences in the energy and manufacturing industry composition; regional energy use patterns including household heating and cooling needs, and average distance traveled; and existing fossil fuel capacity in the electricity sector).[2]

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[1] Economic Impact of Proposed House-Senate Energy Legislation on the U.S. Economy, Charles River Associates, November 2007.

[2] EPA Analysis of the Low Carbon Energy Act of 2007, January 15, 2008.

2. Your testimony cites the magnitude of emissions cuts called for by advocates for a cap and trade scheme—essentially replacing the entire fossil fuel energy infrastructure of the U.S. over the next four decades.

a. Given the global marketplace and strategic interests of developing nations, can this transformation be done without affecting economic competitiveness, economic growth, and the jobs market?

In one sentence, the only way in which a transition to a low-carbon energy system can be accomplished without significant economic cost and dislocation is to find breakthroughs that make low-carbon energy cheaper (which is a massive research and development challenge), not by making carbon energy artificially more expensive. In the fullness of time (that is 20 or 30 years from now), we are going to look back upon the Kyoto-style approach of costly carbon constraint as the climate policy equivalent of wage and price controls to fight inflation in the 1970s, or the Gramm-Rudman approach to deficit reduction in the late 1980s.

b. To the extent this risks reducing U.S. competitiveness, industrial capacity, and economic growth, does it also risk harming the American consumer?

The CRA analysis of similar previous proposals estimated a household cost of $1,700 (in current dollars) by the year 2030; the EPA estimates electricity rates 20 percent higher in 2030 and average household consumption lowered by $1,200 per year (again in current dollars).

c. What, in your view is the best consumer protection?

Not raising energy prices by political dictate.

3. If we embark on this massive transformation and the developing world does not take substantial measures of its own, what effect will it have on world emissions 40 years from now?

a. What effect will this have on global temperatures.

The short answer is: Virtually no effect on either global GHG levels or on temperature increase. The International Energy Agency's long-term analysis of attempting to achieve a CO_2 stabilization level of 450 ppm by 2050 (up from about 385 ppm today) offered this sobering conclusion:

> **The scale of the challenge in the 450 Policy Scenario is immense: the 2030 emissions level for the world as a whole in this scenario is less than the level of projected emissions for**

> **non-OECD countries alone in the Reference Scenario.** In other words, *the OECD countries alone cannot put the world onto the path to 450-ppm trajectory, even if they were to reduce their emissions to zero.* Even leaving aside any debate about the political feasibility of the 450 Policy Scenario, it is uncertain whether the scale of the transformation envisaged is even technically achievable, as the scenario assumes broad deployment of technologies that have not yet been proven (emphasis added).[3]

The italicized comment is worth reiterating and dilating: Even if the U.S. and other advanced industrialized nations were to cease to exist, global CO_2 levels would not stabilize at what are claimed to be non-dangerous levels in the absence of equivalent action from developing nations.

The EPA's analysis reaches much the same conclusion; its study of the effect of Warner-Lieberman concluded that action by the U.S. and Kyoto nations would lower CO_2 levels by only 10 to 25 ppm between 2030 and 2050 below the level CO_2 will rise to in the absence of any further action. *This will make no difference in global temperatures.*

4. To the extent that businesses have to retrofit their operations, will that have a positive or negative impact on business productivity, especially in the short-term?

a. How does business productivity affect the consumer?
b. How does it affect the low-income consumer?

This question is difficult to answer generally because circumstances will differ from industry to industry and plant to plant. However, American industry is generally quite energy efficient already. According to Dept. of Energy figures, greenhouse gas emissions from American manufacturing are at the same level as 1990, even as manufacturing output has grown by more than 50 percent since then. Additional investment may increase energy efficiency further, but has to be weighed against the cost of capital and possibly more productive uses of scarce capital; that is, if the payback period for energy investments is less than the return from other uses of investment capital, it represents a suboptimal investment. Subsidies and tax breaks will change these factors for individual firms and industries, but may still result in suboptimal use of capital over all.

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[3] IEA World Energy Outlook 2008, Executive Summary.

5. You noted in your testimony that Washington State has some of the lowest electricity rates in the nation, and power suppliers may reap windfall profits at the expense of, say, Indiana rate payers. To be consistent with advocates who want to shield consumers from high prices, would that mean the gains of Washington state power suppliers should be transferred to Indiana, Ohio, and Kentucky consumers?

6. You testified about the bureaucracy necessary for devising equitable allocation of consumer rebates. Given the breadth of the cap and energy taxing schemes being proposed, how would this bureaucracy be supported?

a. Would any such support be a drag or propellant for economic growth?
b. Is that pro-consumer?

These two questions should be answered together. In theory people or states that receive unearned windfalls because of large policy changes should disgorge those gains to those who suffered inequitable wipeouts. But this is very difficult to do in practice. The point of my testimony is that "keeping consumers whole" is nearly impossible because of the large variation in energy mixes between states, climate variability (New Hampshire has to heat more the South Carolina in the winter, but cool less in the summer, etc), and industrial profile. A serious attempt at ensuring equity by smoothing or adjusting all these differences would require a bureaucracy along the lines of the kind necessary for administering wage and price controls in the early 1970s, and as the history of those kind of decision making attempts shows, it is a cognitively impractical job, even for the federal government, and is unlikely to work to anyone's satisfaction.

7. This past summer, American workers and consumers experienced the shock of over four dollar gasoline prices, and even higher diesel prices. We took testimony on the devastation to the trucking industry and the airline industry, among others. What effect did those high prices have on consumers?

One aspect of that episode that has still not received adequate attention is the role it played in helping to touch off the final meltdown of the housing and banking industries last fall. Although it wasn't *the* primary cause of our current economic downturn, a number of economists have observed that over the last 40 years, energy price shocks have played a role in every economic downturn. A recent Brookings Institution study of the most recent oil price cycle concludes:

> Although the causes were different [than previous oil price cycles], the consequences for the economy appear to have been very similar to those observed in earlier episodes, with significant effects on overall consumption spending and purchases of domestic

> automobiles in particular. In the absence of those declines, it is unlikely that we would have characterized the period 2007:Q4 to 2008:Q3 as one of economic recession for the U.S. The experience of 2007-08 should thus be added to the list of recessions to which oil prices appear to have made a material contribution.[4]

In other words, in the absence of the oil price spike of 2007-2008, the economy would not have slipped into recession for another year.

Several consumer surveys in 2008 found significant reductions in shopping trips and, according to one estimate, shifted $400 billion in personal expenditures to gasoline from other consumer items. This almost certainly contributed to the difficulties of the retail sector in 2008.

8. Is it good public policy to raise energy costs on business and industry, even if consumers can, on average, be insulated from some of those costs?

Even if consumers are "kept whole" through rebates, higher energy costs to business and industry will be passed along to consumers in higher prices for finished goods and services, as nearly half of all energy (47 percent by AEI's estimate) is consumed indirectly (such as the cost of manufacturing and shipping goods). Higher energy costs will introduce distortions in the cost structures of American industry that will have unpredictable consequences.

Cordially,

Steven F. Hayward, Ph.D
F.K. Weyerhaeuser Fellow in Law and Economics
American Enterprise Institute

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[4] James Hamilton, Causes and Consequences of the Oil Price Shock of 2007-08, Brookings Papers on Economic Activity, Spring 2009.

ONE HUNDRED ELEVENTH CONGRESS

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March 31, 2009

Mr. Mike Carey
Ohio Coal Association
17 S High Street # 410
Columbus, OH 43215

Dear Mr. Carey:

Thank you for appearing before the Subcommittee on Energy and Environment on March 12, 2009, at the hearing entitled "Consumer Protection Policies in Climate Legislation".

Pursuant to the Committee's Rules, attached are written questions for the record directed to you from certain Members of the Committee. In preparing your answers, please address your response to the Member who submitted the questions and include the text of the question with your response, using separate pages for responses to each Member.

Please provide your responses by April 21, 2009, to Earley Green, Chief Clerk, in Room 2125 of the Rayburn House Office Building and via e-mail to Earley.Green@mail.house.gov. Please contact Earley Green or Jennifer Berenholz at (202) 225-2927 if you have any questions.

Sincerely,

Henry A. Waxman
Chairman

Attachment

The Honorable Joe Barton and the Honorable Fred Upton

1. Your testimony suggested how interconnected the coal industry in Ohio is with related industries. There are many companies that are involved in the production of coal that are not directly related to the actual mining of coal from the ground, and these businesses, their employees, and the communities where they are located would be drastically affected by cap and trade legislation. Could you describe for us in more detail what these businesses are and how many people they employ in Ohio? What about across the country?

2. You testified that, after the 1990 Clean Air Act amendments, Ohio lost about 36,000 mining and coal-industry related jobs. Given the schemes to cut carbon emissions dramatically, do you think cap and trade poses even greater risks to the economy?

    a. From you testimony, it would appear that the best consumer protection measure in our economy would be a strong coal industry. In what ways would this be beneficial for consumers?

3. Are there communities in Ohio and neighboring coal states that would be wiped off the map overnight if the local mine or plant were forced to shut down? How many communities are you aware of that are solely dependent on the mining and production of coal, having no product to fall back on should cap and trade legislation make coal production economically unfeasible?

4. Given how crucial coal is to our economy, it seems that pursuing clean coal or carbon capture and sequestration technology could be a much more consumer and worker-friendly solution to the so-called climate change problem. In your view, would pursuing clean coal and/or carbon capture technology damage the industry or could it actually create more jobs and public revenue?

5. Assuming that prudent steps should be taken to reduce "greenhouse gases" and increase our energy security, what in your view would be the most prudent approach, keeping in mind the citizens of Ohio and other states with a similar energy and jobs portfolio?

6. In recent months, there has been much discussion of the systemic shock to the economy that could arise from the collapse of auto industry. Could you discuss the potential systemic risk to the economy from a cap-and-trade program that substantially increases the cost of coal?

7. President Barack Obama has discussed using revenue from a federal emission allowance auction to fund a national $800 a year tax-rebate program entitled Making Work Pay. Could such a rebate program make work pay for the Ohio workforce and the Ohio coal industry?

8. Do you believe that the solar and wind industries can compensate for the lost coal industry jobs, higher energy prices, and systemic economic damage resulting from cap-and-trade legislation?

9. Congress currently stands at a critical crossroads. It can either pass cap-and-trade legislation, imposing a massive burden on our energy based economy, or it cannot pass cap-and-trade and allow America's cornerstones of innovation, ingenuity, and private enterprise tackle the potential challenges that climate change may present. Could you paint a brief picture of what Ohio, and America, would look like, depending on which path Congress takes?

1. Coal provides thousands of direct and indirect jobs in Ohio. Coal is a major contributor to generating jobs in the trucking, railroad and utility industries. The Ohio Coal Association estimates that 11 spinoff jobs are created from every direct coal job. The electric generation provided by coal supplies electricity to the manufacturers of Ohio. Ohio is home to 19,454 manufacturers employing 997,952 workers, which ranks Ohio 3rd in the United States for the number of industrial jobs. If energy costs are too high then you will see these manufacturers cutting production, laying off employees or moving overseas.
2. Cap and trade proposal pose a worse economic risk because the proposals would ultimately lead to the complete elimination of coal as an electricity resource – which would have a widespread negative effect on both consumer and business populations, especially in the energy-intensive manufacturing sector.
    a. A strong coal industry helps all consumers by ensuring a steady, reliable supply of low-cost electricity. It also gives that same affordability and reliability to Ohio's business sector – employers of millions of Ohioans. Coal provides electricity at half the cost of other fossil fuels and significantly less than most renewable energy sources.
3. Clearly, this proposal would have a devastating effect on the Appalachian region of Ohio, where coal is a mainstay of the local economy and where other jobs are scarce. Many employers have already moved out of that region – without coal, there would be nothing left. Ohio has already lost 120,000 mines and more than 36,000 jobs – we cannot sustain any additional losses in our state.
4. The research, development and deployment of clean coal technologies provide great potential for Ohio's economy and for the coal industry. Identifying ways to use Ohio's abundant resources of high-sulfur coal means not only retaining the coal production jobs that already exist in our state, but the creation of new jobs as entire new industries evolve from that deployment. While most of Ohio's coal-fired electricity plants are expected by 2014 to have installed scrubbers that further reduce sulfur emissions, real questions exist about whether Ohio will have sufficient coal production to supply those plants.
5. Clean-coal advances have resulted in reduced emissions of pollutants, improved mining techniques and the successful conversion of coal byproducts into other commercially viable products. There are a number of initiatives already in place or in development that hold great promise for securing coal's future in our state's and nation's energy portfolio and ultimately for having the most positive impact on our environmental sustainability.
    a. For example, Integrated Gasification Combined Cycle units – IGCCs for short – are among the cleanest and most efficient power systems in the world. IGCCs offer real promise, both in terms of environmental performance and efficiency.
    b. Pilot gasification units operate at efficiency levels 20 percent above conventional coal-based power plants. As the technology continues to be refined through future applications, it is projected that IGCC technology will be twice as efficient as today's typical coal-based units. These super-clean IGCC units remove as much as 95 to 99 percent of sulfur dioxide and nitrous oxide emissions, while their increased efficiency helps to reduce emissions of carbon dioxide.

c. Relatively few people are aware of coal's potential as a source of liquid transportation fuel. Proven technologies exist that allow coal to be converted intc clean, zero-sulfur synthetic oil and oil products that are cleaner than required under today's emission laws and regulations.

d. Government can help by providing incentives to make these programs possible - tax incentives such as federal investment credits, fuel excise tax exemptions or accelerated depreciation. Siting incentives such as maximizing retrofit opportunities at existing coal-fired power plants or placing refineries at closed military bases or abandoned industrial or mine sites. And partnership incentives such as public-private partnerships to build first-of-kind commercial-scale demonstration facilities that use the advanced technologies.

6. The bipartisan Congressional Budget Office in an analysis of the effects of cap and trade legislation on American households, found "most of the cost of the cap would ultimately be borne by consumers" and that the poorest fifth of the U.S. population would suffer the worst, losing about three percent of its take-home household income. Clearly, our most vulnerable populations cannot withstand any more hardship. The CBO concluded that in a rebate system for low-income families, similar to that being proposed by the Obama administration, the cost to the nation's economy as a whole would almost *triple*. **That is systemic risk that Ohio and America cannot afford.**

7. Absolutely Not

8. Solar and wind are both more expensive and less reliable as sources of electricity. While there are clear benefits to be derived from renewable energy, there also are some serious drawbacks, as well as many unanswered questions – in particular about their cost and their value in helping to meet peak demand for power.

9. Ohio with cap and trade legislation would face unprecedented economic challenge. Our coal industry would basically be devastated. The infrastructure in place to support the state's manufacturing sector could be crippled. As consumers were forced to pay more for less reliable electricity – families would suffer.

   Ohio with an investment in clean coal technology and the infrastructure to develop and deploy new technologies would become a leader – bringing with it jobs, private investment and economic boon. This investment would lead to improved environmental performance from coal generation while ensuring a ready supply of clean, affordable electricity for consumers and businesses. Coal presents our nation with tremendous economic benefits and even greater potential for the future. And threatening that potential would have far-reaching ramifications on our economy – and on the consumers who today are struggling toward recovery.

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