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Hearing on the Costs and Benefits for Energy Consumers and Energy Prices Associated with the Allocation of Greenhouse Gas Emission Allowances

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Chairman Bingaman, Ranking Member Murkowski, and other members of the Committee, thank you for the opportunity to testify on this important topic. The focus of my testimony will be on how low-income households will be affected by climate change policy and the allocation of greenhouse gas emissions allowances.

The essential points of my testimony can be summarized as follows:

- Low-income households bear a disproportionate burden of the costs associated with effective policies to reduce the use of carbon-based energy because they spend a higher proportion of their budgets on energy and energy-intensive goods and services than higher-income households do.

- The bad news is that without well-designed policies to offset the impact of those costs on low-income households' budgets, policies that are effective at controlling greenhouse gas emissions and achieving the benefits of fighting global warming could push more families into poverty and make many of those who already are poor still poorer.

- The good news is that this dire outcome is preventable. There are effective ways to use a portion of the revenue that can be captured through the auctioning of emissions allowances to protect low-income households.

- The Waxman-Markey bill passed by the House contains provisions that do just that, using existing mechanisms with widespread reach to deliver benefits efficiently to the most vulnerable households. The House provisions ensure that the average person in the poorest fifth of the population does not incur a financial loss as a result of climate change legislation.

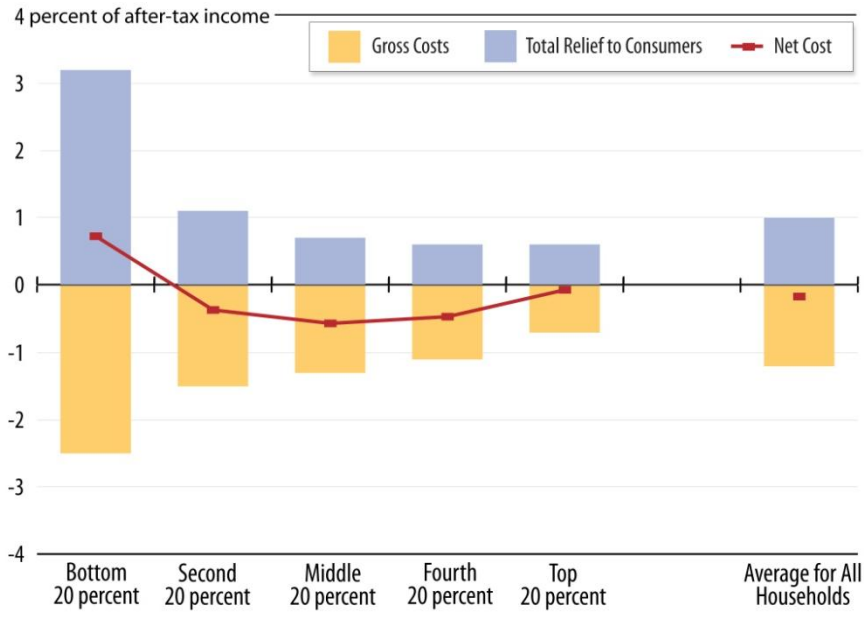
- Special attention to protecting low-income households remains essential when policymakers consider broad-based consumer relief that extends to middle-income households. The House, for example, recognized that the utility-based relief it relied on to provide broad-based consumer relief was insufficient by itself to fully protect low-income households.

Similarly, tax-based policies alone would fail to reach the millions of low-income households that do not file tax returns. The challenge in a cap-and-dividend approach is how to design a delivery mechanism that reaches low-income households.

In the rest of my testimony, I elaborate on these points with further discussion of the impact of cap-and-trade on households. I then describe the principles the Center on Budget and Policy Priorities has developed for designing concrete proposals for low-income relief and how those principles are implemented in the House climate bill. Finally, I discuss the advantages that direct refunds, like those in the low-income provisions of the House bill, have over other ways of delivering consumer assistance.

The Impact of Cap-and-Trade on Households

FIGURE 1:
Costs, Benefits, and Net Financial Impact of the House Climate Bill by Income Group



Note: Chart shows impact of 2020 policies measured in terms of the 2010 economy
Source: Congressional Budget Office

The key points I want to make about the impact of cap-and-trade on households are illustrated by the information in the chart above. The data in the chart come from the Congressional Budget Office's analysis of the House bill and were part of CBO Director Elmendorf's testimony before this committee last week.[1] The yellow lighter-shaded negative bars show the hit as a percentage of

[1] Statement of Douglas W. Elmendorf, Director, "The Economic Effects of Legislation to Reduce Greenhouse-Gas Emissions," before the Committee on Energy and Natural Resources, United States Senate, October 14, 2001, Table 2, page 26.

household income to the average household in different parts of the income distribution from putting a price on carbon. The blue darker-shaded positive bars show CBO's estimate of the financial benefits flowing to the average household in different parts of the income distribution as a result of how the House bill allocates emissions allowances and uses the revenue from auctioned allowances. The markers on the line identify the net costs or benefits in different parts of the income distribution, which are the proper measure of the distributional impact of the complete policy. As always in these kinds of analyses it is important to remember that these estimates do not include the benefits that are the *raison d'etre* of the whole policy—the economic, environmental, and security benefits that derive from encouraging the transition to a clean energy economy.

The bars at the extreme right of the chart show that, on average, across all households, the costs associated with capping emissions are somewhat larger than the financial benefits that are available to be distributed through the use of emissions allowance value. Thus, there is a modest net cost to the economy (before accounting for the economic and environmental benefits of capping emissions) over and above what can be recycled back to households through the use of allowance value. This net cost, not the gross cost due to the cap, is the right measure of the average cost per household of the policy, because it takes into account the financial benefits from the use of allowance value to offset much of the costs due to higher energy prices. However, the fact that the net costs per household are modest on an economy-wide basis is not sufficient to conclude that the costs to vulnerable populations would be small without explicit policies to protect them.

As the chart illustrates, low-income households experience the gross costs of the policies necessary to reduce greenhouse gas emissions more acutely than higher-income households do. In dollar terms, the impact is smaller for these households because their income and consumption are smaller. But as a share of their income, as the chart shows, the impact is substantially greater.

Without any compensating financial relief to low-income households, the burden of these costs would increase poverty and hardship. Fortunately, the House bill delivers sufficient financial benefits to the poorest 20 percent of the population, that, on average, these households do not incur a net financial loss, but rather receive a small net financial gain. (Even with this positive average net benefit for the bottom quintile, however, there inevitably still will be many low-income households whose individual costs are not fully offset by the benefits they receive.)

The net distributional impacts shown in the chart depend heavily on the specific emissions allocation decisions made in the House bill. Under that bill, 15 percent of emissions allowance value is set aside explicitly for low-income energy refunds. These refunds are the principal reason that the average low-income household does not suffer a net financial loss. If, for example, this allowance value had been used instead for additional utility-based relief spread uniformly across the population, low-income households would have been net losers on average. Similarly, if a smaller percentage of allowance value were devoted to low-income relief and the average low-income refund were smaller, more low-income households would incur net losses and the size of the losses for those who incur them would be larger.

Decisions about how to use allowance value involve trade-offs. For example, analysis indicates that the net economy-wide costs of limiting emissions can be lowered some by using allowance value to reduce marginal income tax rates. However, the benefits from reducing tax rates are skewed toward high-income taxpayers, and low-income households will be worse off than shown in the chart (and very likely net losers) because they do not benefit from the lower costs to the

economy. Conversely, if most of the allowance value is used for per capita rebates or direct tax credits and refunds based on household size rather than income, the benefits flowing to low- and moderate-income households will be even larger than those shown in the chart, and the benefits to upper income households will be smaller.

Principles of Low-Income Relief Implemented in the House Bill

Much of the Center on Budget and Policy Priorities' work on climate change policy has focused on developing concrete proposals to shield low-income households from increased poverty and hardship in a way that is *effective* in reaching them, *efficient* (with low administrative costs), and *consistent with energy conservation goals*.[2] Our work has been guided by the following six 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 refunds should be designed to fully offset higher energy-related costs for low- and moderate-income families.

2. ***Use mechanisms that reach all or nearly all eligible households.*** Eligible working households could receive a climate refund through the tax code, via a refundable tax credit. But many other households are elderly, unemployed (especially during recessions), or have serious disabilities and are not in the tax system. Climate refunds need to reach these households as well. Hence, the primary mechanism for reaching low-income households should be a broad mechanism that does not rely on the tax code.

3. ***Minimize red tape.*** Funds set aside for consumer relief should go to intended beneficiaries, not to excessive administrative costs or profits. Accordingly, policymakers should provide assistance to the greatest degree possible through existing, proven delivery mechanisms rather than new public or private bureaucracies.

4. ***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. Various other tax benefits and means-tested assistance vary by household size; this one should as well.

5. ***Do not focus solely on utility bills.*** For low- and middle-income households, higher home energy prices will account for *less than half* of the total hit on their budgets from a cap-and-trade system. This is because goods and services across the economy use energy as an input or for transportation to market. Furthermore, about 20 percent of the households in the bottom quintile of the income spectrum have their utility costs reflected in their rent, rather than paying utilities directly. Policymakers should structure climate refunds so they can help such families with the rent increases they will face as a result of climate policies, as well as with the higher prices that households will incur for gasoline and other products and services that are sensitive to energy costs.

[2] See Sharon Parrott, Dottie Rosenbaum and Chad Stone, "How to Use Existing Tax and Benefit Systems to Offset Consumers' Higher Energy Costs Under an Emissions Cap," Center on Budget and Policy Priorities, April 20, 2009.

6. ***Preserve economic incentives to reduce energy use efficiently.*** Broad-based consumer relief should provide benefits to consumers to offset higher costs while still ensuring that consumers face the right price incentives in the marketplace and reduce fossil-fuel energy consumption accordingly. A consumer relief policy that suppresses price increases in one sector, such as electricity, would be inefficient, because it would blunt incentives to reduce fossil fuel use in that sector. That would keep electricity demand elevated relative to what it would be if consumers saw electricity prices rise, and it would place a greater burden on other sectors and energy sources to provide the emissions reductions the cap requires. The result would be that emissions reductions would be more costly to achieve overall and allowance prices would be higher. Consumers might pay less for electricity, but prices would rise still more for other items.

With these goals in mind, the Center has designed a "climate refund" that would efficiently offset the average impact of higher energy-related prices on low- and moderate-income households. That refund 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. The EBT mechanism is the centerpiece of a climate refund proposal because of its unique ability to reach large numbers of low-income households (including those that are outside the tax system). Proposals to reach low-income working households and others farther up the income scale need to rely on additional mechanisms, particularly refundable tax credits.

The climate bill passed by the House provides robust protection to low-income households consistent with these principles.[3] The bill uses proceeds from the sale of 15 percent of the emissions allowances to reimburse low-income households for the higher costs they will face for energy and energy-intensive goods and services under the bill. This low-income assistance is in addition to relief that would be provided to all consumers, regardless of income, by provisions in the bill that give free emissions allowances to retail electric and gas companies (called local distribution companies, or LDCs) for the purpose of providing their customers with relief on their utility bills.

Under the House bill, low-income families with children, seniors, people with disabilities, and other low-income individuals would be eligible for a monthly federal benefit, administered through their state's human services agency, to offset the loss in purchasing power caused by the other provisions of the bill. This benefit would be delivered electronically onto the same debit cards that states now use to deliver food stamps and other benefits. The bill also uses a portion of the proceeds from auctioning 15 percent of the allowances to finance an expansion in the now-very-small component of the Earned Income Tax Credit (EITC) for low-income workers who do not live with children, the one low-income group most likely to be missed by the benefit provided through the state human services agencies. This EITC expansion would help offset the rising costs those workers would face as a result of the climate legislation. It also would reduce taxes for the one group of Americans who must pay federal income taxes despite living below the poverty line and who thus are taxed deeper into poverty.

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[3] See, Dottie Rosenbaum, Sharon Parrott, and Chad Stone, "How Low-Income Consumers Fare in the House Climate Bill," Center on Budget and Policy Priorities, October 7, 2009.

Under the bill, households with incomes under roughly 160 percent of the poverty line — about $35,000 a year for a family of four in 2009 — would qualify for a monthly energy refund that would be delivered through the EBT system that state human service agencies operate. Households with incomes below 150 percent of the poverty line would qualify for a *full* benefit; the benefit would begin to phase down for households with incomes above this income level and phase out at roughly 160 percent of the poverty line. Based on Congressional Budget Office (CBO) cost estimates and estimated average refund amounts, approximately 70 million individuals would participate in the refund program.

The Energy Information Administration (EIA, the statistical agency of the Energy Department) would calculate each year how much, on average, the higher energy prices resulting from the climate policies would reduce the purchasing power of households with incomes at 150 percent of the poverty line. The EIA would make this calculation for households of different sizes, since energy consumption — and, thus, the loss of purchasing power that results from higher energy costs — varies by household size. EIA would base these calculations on the market value of emissions allowances, other economic costs of capping carbon emissions, and the "carbon footprint" of low-income households in this income range, which can be derived from government data on consumer expenditures. A household's benefit would equal the amount that EIA calculated that energy prices would rise that year for a household of that size as a result of the legislation, after taking into account the relief the household would receive through the free allocation of permits to local utility companies. The benefit would be delivered on a monthly basis.

The legislation directs state human service agencies to *automatically* enroll certain groups of individuals into the refund program. This includes food stamp households, and low-income seniors and people with disabilities who participate in the Supplemental Security Income (SSI) program or receive the low-income subsidy for the Medicare prescription drug program. (All low-income seniors and people with disabilities who participate in both the Medicare and Medicaid programs are automatically enrolled in the low-income subsidy for the prescription drug program and, thus, would automatically receive the energy refund benefit.)

While the Food Stamp Program (now called the Supplemental Nutrition Assistance Program) reaches most very poor families with children, some people have incomes below 150 percent of the poverty line but do *not* participate in the Food Stamp Program, SSI, or the low-income subsidy program for the Medicare prescription drug benefit. These households would be permitted to apply for the refund. Recognizing the importance of ensuring that those who are eligible know about and can easily enroll in the program, the bill includes several additional provisions to facilitate participation by eligible low-income households.

While the Energy Refund Program delivered through state human service agencies' EBT systems is likely to reach a large share of eligible seniors, people with disabilities, and families with children, one group is unlikely to have high participation in the program — non-elderly adult workers who do not live with children. Only about one in four eligible working adults without children in the home participates in the Food Stamp Program. The bill provides consumer relief to these individuals by expanding the Earned Income Tax Credit for workers without children.

Currently, the EITC for this group is very small — the maximum benefit in 2009 is just $457, far below the maximum benefit of $3,043 for a family with one child. Moreover, the EITC for adults

who do not live with children is too small to ensure even that single workers living below the poverty line are not taxed deeper into poverty. In addition, the current EITC for workers without children has such a low eligibility limit that a full-time minimum wage worker is wholly ineligible for the credit.

The House bill provides consumer relief to these workers through an expansion of the childless workers' EITC. The maximum benefit would remain very modest compared with the EITC benefit for families with children — in 2012, the maximum EITC credit for a single worker without children would be $932, or less than one-third the benefit for a parent with one child. In addition, the bill would raise the income level at which the credit begins to phase out, from $7,620 in 2012 dollars (69 percent of the poverty line) to $11,640 in 2012 dollars (about 105 percent of the poverty line; the *end* of the phase-out range would be raised to about 160 percent of the poverty line). Much of the increased EITC would offset the loss of purchasing power these workers will face as a result of the climate legislation. The remainder of the EITC increase would go to reducing the tax bills of these poor and near-poor workers.

The low-income provisions of the House bill provide a sound foundation for the Senate to build on in its climate deliberations. While the House bill would provide enough consumer relief to fully offset most low-income families' increased energy costs, some households — such as those that rent poorly-insulated apartments or have inefficient appliances — will face increased costs that exceed the amount of relief they receive. These households could have difficulty making ends meet even with the consumer assistance provided in the bill. For that reason, as the legislation moves forward, it could be strengthened by providing additional funds for the Low-Income Home Energy Assistance Program (LIHEAP), a program that provides energy assistance to low-income consumers and often targets aid on those who face utility shut-offs or other hardships. The consumer relief provisions also could be strengthened by extending the consumer relief either through the EBT mechanism, or more likely through an income tax credit, to families with incomes somewhat above the eligibility cut-off for the House bill's relief provisions. As I discuss in the next section of this testimony, providing direct refunds based on household size using the EBT mechanism and a refundable tax credit has much to recommend it as a model for providing consumer relief farther up the income scale as well.

The Advantages of Direct Refunds over Other Forms of Consumer Relief

Refunds 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, refunds 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 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, refunds help households that cannot 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, pose other serious problems, or lack crucial details needed to know how they would work in practice.

Universal "Cap and Dividend"

The proposal closest in spirit to refunds is the universal "cap-and-dividend," approach often associated with energy entrepreneur Peter Barnes.[4] 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. Therefore, the dividend would be smaller than the actual losses that high-income individuals would experience due to higher energy-related costs, because they have above-average per capita energy expenditures. It would be somewhat larger than the actual losses of low-income individuals.

There are a number of similarities between cap and dividend and the Center's refund approach. 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). 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.) Refunds are better suited to providing a more appropriate family-size adjustment.[5]

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[4] 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.

[5] CBPP's proposed refund, and the one in the House bill, 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 refund 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 less effective than a refundable tax credit in preserving the purchasing power of low- and middle-income consumers.

For example, 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.[6] 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, since the benefits of corporate tax cuts are concentrated still higher up the income scale. Using auction revenues to provide households refunds 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, as the CBO analysis emphasizes, policymakers face a trade-off between achieving efficiency gains and achieving distributional goals. Moreover, the economic efficiency gains CBO identifies are relatively 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 and to cause inequality in the United States to widen further.[7]

Distributional analysis by Resources for the Future reinforces the CBO analysis.[8] The RFF analysis finds that the benefits of cutting marginal tax rates would mainly go to upper-income individuals. In contrast, providing refunds to low- and middle-income consumers would result in the best outcome for those consumers.

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[6] 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.

[7] 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.

[8] 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.

A reduction in payroll tax rates does not fare as well as a flat refund 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 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.[9] At that point, the modified payroll tax proposal would look a lot like low- and-middle-income refunds.

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 should not be viewed as a substitute for rebates as a means of addressing the impact of climate change legislation on consumers' budgets. Cost-effective investments in energy efficiency can contain cap-and-trade costs but the need for consumer assistance will remain.

Recent analyses offer an encouraging assessment of the *potential* of energy efficiency to reduce energy use and contain cap-and-trade costs, but they also point to the challenge of finding ways to achieve those efficiencies.[10] For example, Resources for the Future researchers examining the efficiency and distributional effects on households of a range of climate policy options concluded that a policy that would invest in energy efficiency "is one of the most progressive we examined and would lead to lower allowance prices…however, the implementation of this kind of policy is one of the most problematic of any that we consider."[11] That is because, according to RFF, it is "unclear" whether the direct investment of emissions allowance value could overcome the persistent barriers that now impede the adoption of cost-effective energy efficiency improvements, "and indeed what institutions could be employed to achieve this result."[12] In other words, both the promise of energy efficiency and the challenge of achieving that promise on a very large scale are great.

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[9] 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.

[10] See McKinsey Global Energy and Materials, "Unlocking Energy Efficiency in the U.S. Economy, July 2009, http://www.mckinsey.com/clientservice/electricpowernaturalgas/downloads/US_energy_efficiency_full_report.pdf;

[11] Dallas Burtraw, Rich Sweeney, and Margaret Walls, "The Incidence of U.S. Climate Policy: Where You Stand Depends on Where You Sit," RFF Discussion Paper 08-28, September 2008. http://www.rff.org/rff/documents/rff-dp-08-28.pdf

[12] *Ibid.*

To the extent that measures to encourage or require cost-effective investments in economic efficiency can reduce the overall demand for energy, they can lower the costs of meeting the emissions cap and hold down the allowance price, thereby limiting the size of the hit to consumers' pocketbooks. But as long as emissions allowances have a significant value, that hit will not be eliminated and direct consumer relief will be warranted.

If the gains from efficiency investments are broad-based throughout the economy, the aggregate hit to consumers will be lower than it would be without those efficiency gains, but the low-income *share* of the hit would not necessarily change much. In other words, if a certain percentage of the allowance value would be appropriate for offsetting the hit to low-income consumers when the allowance price is $30 per ton of carbon-dioxide, the same percentage would be appropriate if broad-based efficiency investments lowered the price to $20 per ton for the same aggregate emissions reductions. The hit to consumers' budgets would be smaller across-the-board, but the low-income *share* would be the same.

Energy efficiency efforts that achieve across-the-board reductions thus do not change the percentage of allowances needed to provide relief to low- and moderate-income households. But what about efficiency investments like weatherization assistance targeted specifically at that group?

In principle, such investments could over time reduce the aggregate carbon footprint of the low-income population relative to the population in general and reduce the percentage of allowances that would be required to provide adequate low-income protection. In practice, however, there are two significant problems.

First, existing weatherization and other energy efficiency programs have traditionally operated on a very small scale and would likely take many years to scale up to reach a substantial portion of the low- and moderate-income population. For example, until this year the Weatherization Assistance Program, which helps low-income households make their homes more energy efficient through measures such as better insulation, served only a few hundred thousand homes a year.[13] The American Recovery and Reinvestment Act of 2009 (ARRA) provided a temporary injection of funds aimed at increasing the pace of weatherization to a million homes per year. But even if it is possible to ramp up to that pace cost-effectively and sustain it over many years, it would still take decades just to reach the 37 million low-income households that are eligible for LIHEAP assistance. In the meantime, many eligible households would continue to face high costs while waiting for their homes to be weatherized. Direct refunds, in contrast, can reach tens of millions of low- and moderate-income people immediately.

Second, the energy efficiency programs most often discussed as a substitute for rebates are generally limited to 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 increased costs in home energy but also for the increase in the cost of gasoline and other products.

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

As a complement to direct refunds, energy efficiency investments can play a very valuable role in reducing the energy costs of those low-income households that have particularly high costs because they live in old poorly insulated houses or have old energy-inefficient appliances. That would reduce the percentage of households whose budget hit from climate legislation exceeds the amount of the relief they receive through the legislation. But energy efficiency investments would not reduce the need for direct refunds to offset the remaining costs for these households and for all the other low-income households who would still face higher costs for their home energy, gasoline, and the array of goods and services that use energy in their production or transportation to market.

Using Utility Companies to Provide Consumer Relief

The most straightforward way to offset the impacts of a cap-and-trade system on consumers' budgets is for the government to sell the emissions allowances to the electricity generators, petroleum refiners, and other entities that are required to hold them in a cap-and-trade system and to refund the proceeds to consumers, or at least to refund enough of the proceeds to offset the increased costs that consumers up to certain income levels would bear.

The utility company approach embodied in the House bill and in the Kerry-Boxer bill just introduced takes a different tack and allocates a portion of the emissions allowances *free* to local utility companies. The local utilities, or LDCs, would not have a direct use for the allowances they were given, because they do not generate the electricity they distribute and thus don't themselves emit greenhouse gases. Instead, the utility companies would sell the allowances and use the proceeds to offset the higher prices they would have to pay under a cap-and-trade system for the electricity generated by their affiliates or that they purchase in the competitive wholesale market. State utility regulators would then have the task of making sure that LDCs used their valuable emissions allowances as intended to keep higher prices for fossil fuels from translating into higher utility bills.

Several considerations militate against using an LDC approach that is aimed at keeping customers' bills from increasing as the primary vehicle for consumer relief in climate change policy. Four concerns in particular, stand out.[14]

- **Such an approach would not offset the bulk of consumers' increased costs.** As noted earlier in this testimony, increased utility bills would account for *less than half* of the impact of higher energy-related prices on consumers' budgets. Therefore, having LDCs suppress increases in utility bills would fall well short of restoring consumers' lost purchasing power due to the higher energy prices. This is even more true for middle-income households than it is for low-income ones. As one moves up the income scale, increases in costs for items other than home utility bills make up an increasing share of the impact of higher energy prices on families' budgets.

- **State regulation of LDCs is uneven.** Proponents of the LDC approach argue that LDCs are regulated utilities and will be required to use the allowances they are given to benefit

[14] See Chad Stone, "Holding Down Increases in Utility Bills Is a Flawed Way to Protect Consumers While Fighting Global Warming," Center on Budget and Policy Priorities, June 3, 2009, and Chad Stone and Hannah Shaw, "Senate Can Strengthen Climate Legislation by Reducing Corporate Welfare and Boosting True Consumer Relief," Center on Budget and Policy Priorities, July 10, 2009.

consumers. In fact, the quality of state utility regulation is uneven across the country. The mere fact that utilities are regulated is not a guarantee that free allowances to LDCs will produce well-targeted and effective consumer relief everywhere. LDCs' ideas of what would be the best use of the allowances would not necessarily align with policymakers' goals. This problem would be lessened if Congress sets rules for how the LDCs are to use these funds, and the House bill and Kerry-Boxer dictate that they should be used for the benefit of ratepayers. Depending on the strength of the regulators in a state, however, some of the funds still might not be used in optimal fashion or might go for overhead or turn up in utility companies' bottom lines.

- **This approach would cause prices for other forms of energy and energy-related products to rise more and would raise the overall cost of meeting the cap.** Keeping utility bills low under a cap-and-trade system would blunt the "price signal" that an emissions cap is designed to send in order to encourage more efficient home (and other) energy consumption. It thus would keep electric and gas consumption higher than it otherwise would be. (This effect might be lessened by certain federal rules specifying how the LDCs are to deliver the consumer relief, but it would not be eliminated.[15]) Reductions in the use of *other* forms of energy would then have to be greater in order to produce total emissions reductions sufficiently large to comply with the overall emissions cap. The result would be a less cost-effective pattern of emissions reductions, higher allowance prices, and higher economy-wide costs.

- **A substantial share of the resources going to utilities to provide their customers relief from higher energy prices would instead go to business profits.** The House bill and Kerry-Boxer stipulate that LDC relief should be delivered to ratepayer classes (residential, commercial, and industrial) in proportion to their energy use. That means that over 60 percent of the relief the bill would distribute through utilities would go to utilities' business customers, not individual households. A Congressional Budget Office analysis concludes that businesses would retain this relief as added profit rather than pass it on to their customers in the form of lower prices for their products. The profits from lower utility bills for businesses would primarily benefit the high-income households who own or hold stock in the firms. About 63 percent of the allowance value given to utilities to benefit their business customers would ultimately go to the highest-income 20 percent of households, according to CBO.

From a distributional standpoint, the last concern is particularly serious. It is the main reason why the net hit to households in the richest 20 percent of the population shown in Figure 1 above is so modest compared with the hit to the middle 60 percent of the population. A different possibility is that business customers will in fact pass the relief they receive on to their customers. But this outcome is no better because it leads to the third problem identified above: a serious weakening of the price signal that raises allowance prices and the cost of meeting the cap.

[15] Providing relief in the form of reductions in the fixed portion of utility bill charges, which the House bill and Kerry-Boxer encourage to the maximum extent practicable, preserves the price signal of higher rates in the variable portion of the bill to the maximum extent possible, but that effect is largely blunted if consumers look only at the bottom line of their bill, where they would not experience the "sticker shock" that could prompt changes in behavior.

The bottom line is that seeking to benefit consumers by giving emissions allowances free to LDCs to keep down their customers' bills puts policymakers on the horns of a dilemma. If they structure the LDC relief for businesses so it focuses on the fixed part of firms' utility bills as the House bill analyzed by CBO does, they will essentially be providing windfall profits — or corporate welfare — on a wide scale, with hi**g**hly regressive results. If, instead, they try to require LDCs to provide relief on the variable portion of the bill (or if businesses respond only to their bottom-line utility costs), they will be blunting the incentive to reduce consumption, thereby causing prices for other energy-related products to climb further and raising the economic costs of combating global warming.

A better alternative exists. The Senate would be well-advised to scale back the LDC portion of the House bill — especially the large amount of the LDC relief earmarked for commercial and industrial users — and to devote the freed-up funds to direct consumer relief for moderate- and middle-income households to supplement the relief that the bill provides to low-income households. The LDC relief and other business protections in the House bill are scheduled to phase out between 2026 and 2030 but there are benefits to starting with a smaller allocation to begin with and phasing it out more quickly.

Conclusion

One of the key goals of an effective but fair climate policy is to ensure that the policies necessary to reduce greenhouse gas emissions do not increase the depth and extent of poverty by reducing the purchasing power of low-income households. The Waxman-Markley House bill provides that insurance with strong low-income protections. Together, the LDC relief and low-income refund ensure that the average low-income household is fully protected against the loss of purchasing power it would otherwise experience as a result of the policies necessary to meet the cap on greenhouse gas emissions. However, low-income households with particularly high energy costs and moderate-income households with incomes too high to qualify for the low-income refund are not fully protected. As the Senate moves forward with its deliberations it can strengthen the protection for those groups by supplementing the low-income protection with some additional funding for LIHEAP and by extending eligibility for direct refunds farther up the income scale.

It is critical, however, that the relief provided to low-income households not be diluted. In other words, any direct relief for moderate-income households to supplement their LDC relief will need to come *on top of* the 15 percent allocation for direct low-income relief the House provides, rather than being taken out of it. Reducing the size of the low-income refund in order to provide direct relief farther up the income scale would mean that a greater portion of low-income households ended up with relief that failed to offset the full increase in energy costs they faced. Moreover, for those low-income people for whom even the current low-income refunds would fall short of offsetting their energy cost increases (because the cost increases they faced were well above the average), diluting the low-income refunds would cause their budgets to be squeezed even more. The result would be significantly more hardship, with the legislation pushing more families into poverty and making many of those who already are poor still poorer.