

February 19, 2009

## EXTENDING “CLIMATE REBATES” TO INCLUDE MIDDLE-INCOME CONSUMERS

by Chad Stone and Hannah Shaw<sup>1</sup>

Policies that restrict greenhouse gas emissions 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. Such policies are necessary to encourage energy efficiency and greater use of clean energy sources. They will, however, cut into consumers’ budgets.

Low-income consumers 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. Protecting low-income consumers therefore should be the top priority of the consumer relief provisions included in climate change legislation. The Center on Budget and Policy Priorities has designed a “climate rebate” that would efficiently offset the average impact of higher energy-related prices on low-income households.<sup>2</sup> The rebates would be funded with revenues raised by climate change legislation, most likely from the auctioning of emissions allowances under a cap-and-trade system.

Middle-income consumers, too, will feel the squeeze from higher energy-related prices, and policymakers have expressed interest in helping offset their added costs as well. Accordingly, this report outlines two options for modifying the Center’s proposal in order to

### KEY FINDINGS

- Effective policies to reduce greenhouse gas emissions will raise prices for energy-related products and thereby squeeze family budgets.
- The squeeze will be greatest for low-income households, but middle-income households will also be affected.
- Refundable tax credits are the most efficient way to restore middle-income households’ lost purchasing power. A new climate tax credit, coupled with a rebate provided to very low-income households through state electronic benefit transfer (EBT) systems, could effectively keep low- and middle-income households from being made worse off.
- Other options to help low- and middle-income households, such as cutting tax rates or giving utility companies billions of dollars to reduce utility bills, would be far less effective.
- Auctioning the emissions allowances under a cap-and-trade system would generate more than enough revenue to pay for this consumer relief. Less than 60 percent of the auction revenues would be sufficient to provide relief to a substantial majority of U.S. consumers.

<sup>1</sup> Martha Coven and Heather Long also contributed to this report.

<sup>2</sup> Center on Budget and Policy Priorities, “How a Climate Rebate Would Work,” Fact Sheet, June 3, 2008, <http://www.cbpp.org/6-3-08climate-fact.htm>.

extend consumer relief further up the income scale while still protecting those who are the most vulnerable. The size of the climate rebate, and how far up the income scale it extends, would be tied to the amount of funding that policymakers make available and how much of consumers' losses they want to offset.

## **Background: Our Original Low-Income Rebate Proposal**

Under the Center's original proposal, a climate rebate would be delivered each month to very low-income households through the Electronic Benefit Transfer (EBT) systems, which are essentially debit cards that states already use to provide food stamps 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).

These rebates would go to the approximately 60 million Americans in the "bottom quintile," or the lowest-income 20 percent of the population. (For a family of three, these are households with incomes below \$27,500.) Households in this quintile have average annual incomes of only about \$15,000, and even a modest 15 percent reduction in greenhouse gas emissions would cost them an average of \$750 a year in higher energy-related costs.<sup>3</sup> The rebates would equal the loss in purchasing power that the average household in the bottom quintile would experience due to the effects of higher energy-related prices that result from the emissions cap.

More than 20 million Americans in the "second quintile," or the next-to-lowest 20 percent of the population, also would receive rebates, which would phase down at the same income levels as the EITC. (In 2009, the EITC was scheduled to completely phase out at \$43,415 for a married couple filing jointly with two children.<sup>4</sup>) Because families in the "second quintile" spend more on energy, on average, than very low-income families do and because the size of the rebate would phase down in this quintile, only a portion (rather than all) of these families' purchasing power losses would be offset.

## **Extending the Rebate to Middle-Income Consumers**

This low-income rebate program could easily be modified so it also provides relief to consumers with somewhat higher incomes.

**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

---

<sup>3</sup> The analysis used to derive this \$750 a year figure largely reproduces analysis by the Congressional Budget Office of the distributional effects of a 15 percent reduction in CO<sub>2</sub> emissions. Because there are some differences in data and methodology, CBO's estimate is \$680 a year (in 2006 dollars). See Statement of Peter Orszag, "Issues in Designing a Cap-and-Trade Program for Carbon Dioxide Emissions," before the Committee on Ways and Means, U.S. House of Representatives, September 18, 2008, Table 1, p. 6.

<sup>4</sup> The Economic Recovery and Reinvestment Act of 2009 temporarily raised this threshold by \$1,880 for 2009 and 2010 but the original threshold (adjusted for inflation) would be in effect when climate change legislation takes effect. As designed, the original CBPP low-income proposal would phase out at a somewhat higher level than the EITC, hence the cutoffs shown in Table 1 for this proposal are higher than the current-law EITC phase-outs.

systems. The millions of households that receive food stamps or the low-income subsidy for the Medicare prescription drug benefit would receive the EBT-based rebate automatically, with no need to apply. Households that are financially eligible for these programs but do not participate in them could apply for the rebate through their state human services agency.

**Create a new “climate tax credit” for other households.** For all but very-low-income households, a refundable income tax credit (i.e., one that provides a refund check to families whose tax credit amount exceeds their income tax liability) is the most efficient way to deliver a climate rebate. Our original low-income proposal used the Earned Income Tax Credit for this purpose. Doing so would provide for effective targeting; the EITC phases out at moderate income levels. To reach middle-income as well as low-income households, however, would require a different vehicle: a new, refundable “climate tax credit,” rather than an expansion of the EITC. The 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.

**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. The Energy Information Administration would set the size of the rebate each year, based on the impact of the emissions cap on consumers’ purchasing power.

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 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.

**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 larger rebates, it would require more funding. The Center’s low-income rebate program can be funded with about 14 percent of the total market value of the emissions allowances under a cap-and-trade program (or 14 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 to offset the average loss of the middle 20 percent of the population would require about 55 percent of the total allowance value.<sup>5</sup>

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

---

<sup>5</sup> 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.

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.<sup>6</sup>)

## Two Options for Extending the Rebate

Table 1 summarizes the key features of the Center’s original low-income rebate proposal and illustrates two ways in which it could be “dialed up” to include households farther up the income scale: by converting it into a *low- and moderate-income program* designed to offset the average loss of purchasing power of people in the second income quintile or a *low- and middle-income program* designed to offset the average loss of purchasing power of people in the middle quintile

**Low- and moderate-income rebate.** This proposal, which is like legislation introduced by Representative Hilda Solis in 2008, would provide a full rebate to households in the bottom two income quintiles — i.e., to the bottom 40 percent of the population — and provide a partial rebate to people at somewhat higher income levels (since the rebate would phase down and then out at those levels). The amount of the rebate would be set equal to the average loss of purchasing power borne by households in the second quintile. A new, refundable climate tax credit would be the delivery vehicle for those who file an income tax return.

Married couples earning \$40,000 or less and single filers earning \$20,000 or less would receive a full climate rebate. Married couples earning more than \$40,000 and less than \$80,000 and single filers earning more than \$20,000 and less than \$40,000 would receive a partial rebate. This proposal could be funded with about 35 percent of the value of the emissions allowances.

**Low- and middle-income rebate.** This proposal, which is like legislation introduced by Representative Edward Markey in 2008, expands the previous one farther into the middle class by providing a full rebate to the middle quintile as well as the bottom two quintiles, and providing a partial rebate to many in the next-to-the-top quintile. The amount of the full rebate would equal the average loss of purchasing power in the middle quintile and hence would be somewhat larger than under the other options. Married couples earning \$70,000 or less and single filers earning \$30,000 or less would receive a full rebate. Married couples earning more than \$70,000 but less than \$110,000 and single filers earning between \$30,000 and \$50,000 would receive a partial rebate. This proposal could be funded with about 55 percent of the value of the emissions allowances.

---

<sup>6</sup> 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>.

Table 1 Characteristics of Selected Climate Rebate Proposals			
<i>Proposal:</i>	<i>Low Income</i>	<i>Low and Moderate Income</i>	<i>Low and Middle Income</i>
Size of rebate keyed to losses in:	bottom quintile	second quintile	middle quintile
<b>Delivery mechanism</b>			
for very low-income households	EBT*	EBT*	EBT*
for taxpayers	EITC**	new refundable credit	new refundable credit
<b>Is the average loss of purchasing power restored?</b>			
Bottom 20 Percent	yes	yes***	yes***
Second 20 Percent	partially	yes	yes***
Middle 20 Percent	no	partially	yes
Fourth 20 Percent	no	no	partially
Top 20 Percent	no	no	no
<b>Approximate Income Threshold for Receiving Rebate by Household Type</b>			
<i>Single</i>			
... full rebate	\$12,000	\$20,000	\$30,000
... any rebate	\$18,000	\$40,000	\$50,000
<i>Married Couple filing jointly</i>			
... full rebate	\$20,000	\$40,000	\$70,000
... any rebate	\$49,000	\$80,000	\$110,000
<b>Approximate Cost of Proposal</b>			
Percent of allowance value used for rebate	14	35	55
Percent of unused allowance value	86	65	45

Notes:

\* EBT = Electronic Benefit Transfer system used by states to deliver food stamps and other benefits

\*\* EITC = Earned Income Tax Credit for low-income workers

\*\*\*Rebate is somewhat larger than the average loss of purchasing power

Income groups are based on a ranking of people by their size-adjusted household income

Each quintile represents 20 percent of the population (about 60 million people)

**The role of LIHEAP and weatherization assistance.** In both of these proposals (as well as the original low-income proposal), an amount equal to 1 percent of the total value of the emissions allowances should be reserved from the funding for rebates to boost funding for the Low Income Home Energy Assistance Program (LIHEAP) and the Weatherization Assistance Program (WAP). (In the low- and middle-income proposal, for example, rebates would be funded with 54 percent of the allowance value and the expansion of LIHEAP and WAP would be funded with 1 percent.)

These programs currently assist more than 5.8 million low-income households in paying their heating and cooling bills. To qualify, families must have incomes below 150 percent of the poverty line or below 60 percent of the state's median income. LIHEAP serves the vital role of assisting families in times of financial hardship or extreme weather conditions. Additional LIHEAP and WAP funds also could help low-income families that face particularly high home energy costs as a result of climate change legislation — i.e., that face cost increases significantly above the average —

since those families are likely to need additional assistance in transitioning to a low-carbon economy beyond what a standardized national rebate would provide.

**Should all rebates be created equal?** Our analysis indicates that the climate rebate approach outlined here is the most promising one for providing consumer relief while achieving the environmental and economic benefits of reducing greenhouse gas emissions. As currently envisioned, the rebate would be the same amount for all eligible households of a given size.

By design, the climate rebate in this approach would likely be smaller than the average loss in purchasing power that upper-income households experience, and, as Table 1 shows, could be larger than the average purchasing power loss of lower-income households. States would be given the means to redress extreme outcomes among low-income consumers who have particularly high energy costs, through the LIHEAP and WAP component just discussed. But policymakers may perceive other sources of systematic variation that they might want to try to address as well. Here are two:

- *Regional Variation.* Consumers living in regions heavily dependent on fossil-fuel power are likely to perceive that they will bear a higher burden under climate change legislation than consumers living in regions with hydroelectric or nuclear power. Similarly, rural consumers are likely to perceive that they will bear a higher burden because they drive more and use more gasoline. There is something to these perceptions, but a proper assessment of the importance of regional variation should look at the entire household budget, not just particular items. For example, regions with high gasoline consumption are not necessarily the same as those with high utility bills, and a substantial percentage of the impact is through indirect effects that are likely to be fairly similar across regions.

Assessing regional variation is bedeviled by data limitations and conceptual questions about how to measure and assess interregional equity. The evidence gleaned so far from consumer expenditure data is that 1) regional effects exist, but 2) the range of variation across regions is not large (as a percentage of the average household's income), and 3) the range and pattern of regional variation are sensitive to particular policy choices, such as whether to auction all of the emissions allowances, and, if not, to whom and for what purposes free allowances are allocated.<sup>7</sup> Consideration of how to address regional variation is certainly necessary, but a fully satisfactory policy response is likely to remain elusive. Setting aside a portion of the emissions allowance value for grants to states likely to experience disproportionate burdens may end up being the most viable policy.

- *Cost-of-Living Adjustments.* Higher prices for energy and energy-related products due to climate change are reflected in the consumer price index used to calculate cost-of-living adjustments (COLAs) in federal programs such as Social Security. Households that receive a substantial fraction of their income from COLA-protected sources might be over-compensated if they receive a full rebate as well. For that reason, policymakers might want to provide only a

---

<sup>7</sup> See Dallas Burtraw, Rich Sweeney, and Margaret Walls, "The Incidence of U.S. Climate Policy: Where You Stand Depends on Where You Sit," Resources for the Future Discussion Paper RFF DP 08-28, September 2008, and Kevin A. Hassett, Aparna Mathur, and Gilbert E. Metcalf, "The Consumer Burden of a Cap-and-Trade System with Freely Allocated Permits," American Enterprise Institute Working Paper #144, December 23, 2008.

partial rebate to households receiving COLA protection for a substantial fraction of their expenditures. As with regional variation, however, the decision about how or even whether to address this source of variation in the impact of climate legislation on different households' budgets will involve difficult trade-offs and policy judgments.

## **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 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 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 or lack some of the details necessary to know how they would work in practice.

### **Universal "Cap and Dividend"**

The proposal closest in spirit to rebates is the universal "cap-and-dividend" proposal advocated by Peter Barnes, an energy entrepreneur who has studied this issue for a number of years and written and testified about this approach.<sup>8</sup> 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 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. (Barnes treats the dividend as taxable income which means that

---

<sup>8</sup> 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>.

the CBO “25-percent offset” discussed earlier in this paper would not be needed to keep the budget deficit from widening.)

- 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).<sup>9</sup> 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.<sup>10</sup>

### 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 not be as effective as 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.<sup>11</sup> 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. In contrast, under a system using all of the auction revenues to provide all households with lump-sum rebates, CBO found that low- and moderate-income households would be net gainers.

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

---

<sup>9</sup> *ibid.*

<sup>10</sup> 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.

<sup>11</sup> Congressional Budget Office, “Tradeoffs in Allocating Allowances for CO<sub>2</sub> Emissions,” April 25, 2007, [http://cbo.gov/ftpdocs/89xx/doc8946/04-25-Cap\\_Trade.pdf](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>.



emphasizes, policymakers face a trade-off between achieving efficiency gains and achieving distributional goals. Indeed, the economic efficiency gains CBO identifies are relatively modest, and the effect of the tax cuts that produce those 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.<sup>12</sup>

A recent study by Resources for the Future reinforces the CBO analysis.<sup>13</sup> 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 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 could be 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.<sup>14</sup> 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 disabled, 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.

This modified payroll tax approach, however, has several drawbacks of its own. First, although the income tax credit would be based, for most people, on payroll taxes paid, the more that this approach moved in the direction of bringing in low-income people and seniors who do not owe payroll taxes, the less it would be tied to the decision to work. Thus, the efficiency advantages of a payroll tax cut would be attenuated, and this approach would do little to boost economic activity. Second, families of the same size with the same level of income would not necessarily receive the same-size tax credit (as they would under the Center's climate tax credit proposal). For example, a family with two earners could receive up to twice as large a credit as a family with the same income

---

<sup>12</sup> 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 are very small, however, compared with what would be required 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 those 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.

<sup>13</sup> 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>.

<sup>14</sup> 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.

but only one earner. Similarly, two families with the same income and the same number of earners would get the same credit even if one had no dependents and the other had several children.

This discussion of a rebate based on payroll taxes once again illustrates the trade-offs policymakers face between efficiency gains and distributional impacts. The efficiency gains are largest — although still quite small — when the rebate comes exclusively in the form of a payroll tax cut. But that approach leaves millions of low-income and senior households out in the cold.

### 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 very small scale and would likely take many years to scale up to reach a substantial portion of the population. For example, the Weatherization Assistance Program, which helps low-income households make their homes more energy efficient through measures such as better insulation and newer appliances, serves only a few hundred thousand homes a year.<sup>15</sup> Even if the program were doubled or tripled to reach 1-2 million homes a year — which would require a huge buildup in effort — it would take nearly two 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 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. 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), and other legislative proposals have taken this approach as well.<sup>16</sup> 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.<sup>17</sup>

---

<sup>15</sup> See the LIHEAP Annual Report to Congress for Federal Fiscal Year 2005.

<sup>16</sup> 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.

<sup>17</sup> 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.

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.<sup>18</sup> In addition, the sizeable share of Americans whose utilities are built into their rents could be left out entirely if climate assistance were delivered 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 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 moderate-income consumers with an 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 efficiency improvements. A rebate, in contrast, protects consumers' purchasing power without blunting the incentives created by higher energy prices. (As discussed above, requiring utilities to operate programs to help their consumers become more energy efficient would, at best, be only a partial solution to this problem.)

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 — the approach 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.

---

<sup>18</sup> 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>.

Finally, 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.

## 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 that 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 significant 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 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 in prices for energy-related products *other than* household utilities that would occur as a result of climate change measures. Both approaches also would require substantial expansions in government regulation.