

## Climate Legislation: Commonly Asked Questions

The House of Representatives passed the most sweeping energy and climate legislation in history, the American Clean Energy and Security Act (ACES) in June. Hot on their heels, the Senate unveiled similar climate legislation in September. These two pieces of legislation would enact broad-scale changes in the way we pay for and use energy, and have resulted in much debate and discussion. This document seeks to address several major questions about current climate legislation, focusing on the keystone role of energy efficiency in solving the climate challenge.

### General Questions about Climate Legislation:

#### Why do we need national climate legislation?

*Climate change is a real problem requiring a real solution.* The scientific case to take action against climate change grows stronger every day, with more and more evidence predicting devastating impacts on human health, food security, natural resources, and economic stability.

*National legislation is the most direct path to energy reform.* The prices we pay today for energy do not reflect its full costs, including the impacts of long-term supply vulnerability, national security, air pollution, and the effects of global climate change. This market failure forces us to continually overvalue “cheap” dirty energy and undervalue clean energy and energy efficiency. National legislation to reduce carbon emissions would take the first step to correct the market failure throughout our whole economy. Innovation and investment in clean energy must be used in concert with a national carbon reduction plan in order to unleash the full potential of a new clean energy economy.

*National legislation would allow us to lead.* The United States alone cannot mitigate global climate change, and other countries must develop real and verifiable plans to reduce emissions in the immediate future. National legislation would demonstrate our commitment and leadership on the issue and bring international climate negotiations forward. In addition, national climate legislation would present an unprecedented opportunity for US leadership in clean energy technology and innovation, an area where other countries are launching ahead.

#### Why a cap-and-trade program and not a carbon tax?

Both a cap-and-trade program and a carbon tax are viable mechanisms to achieve real carbon emissions reductions. Each has its advantage, with distinct tradeoffs between the two: A tax would create more price certainty by setting a definite price on greenhouse gas emissions, but could result in an uncertain level of emissions reductions. Conversely, a cap-and-trade program would create more emissions certainty by defining the number of emissions permits issued, but would result in less price certainty than a tax. Both the House and Senate climate bills adopt a hybrid approach relying mainly on a cap-and-trade program, but including a price floor and a price ceiling to reduce price volatility. Politically, a cap-and-trade program has made the most headway in Congress and has garnered support from a diverse set of interests. A cap-and-trade program is a sensible and politically viable mechanism to achieve urgent climate goals.

#### What is the role of energy efficiency in climate legislation?

Energy efficiency policies and programs alone will not reduce greenhouse gas emissions below the level of a cap, but—if well designed and implemented—they will contribute to meeting the cap with lower cost abatement and, thus, will reduce the cost of meeting climate bill goals while growing the green economy. A recent McKinsey and Company report found that unlocking energy efficiency’s potential could yield gross energy savings of \$1.2 billion and a reduction in projected non-transportation energy use by 23 percent in 2020. This would amount to preventing over 1.1 billion tons of carbon dioxide emission annually, or about the amount emitted by all of the nation’s passenger vehicles and light trucks.

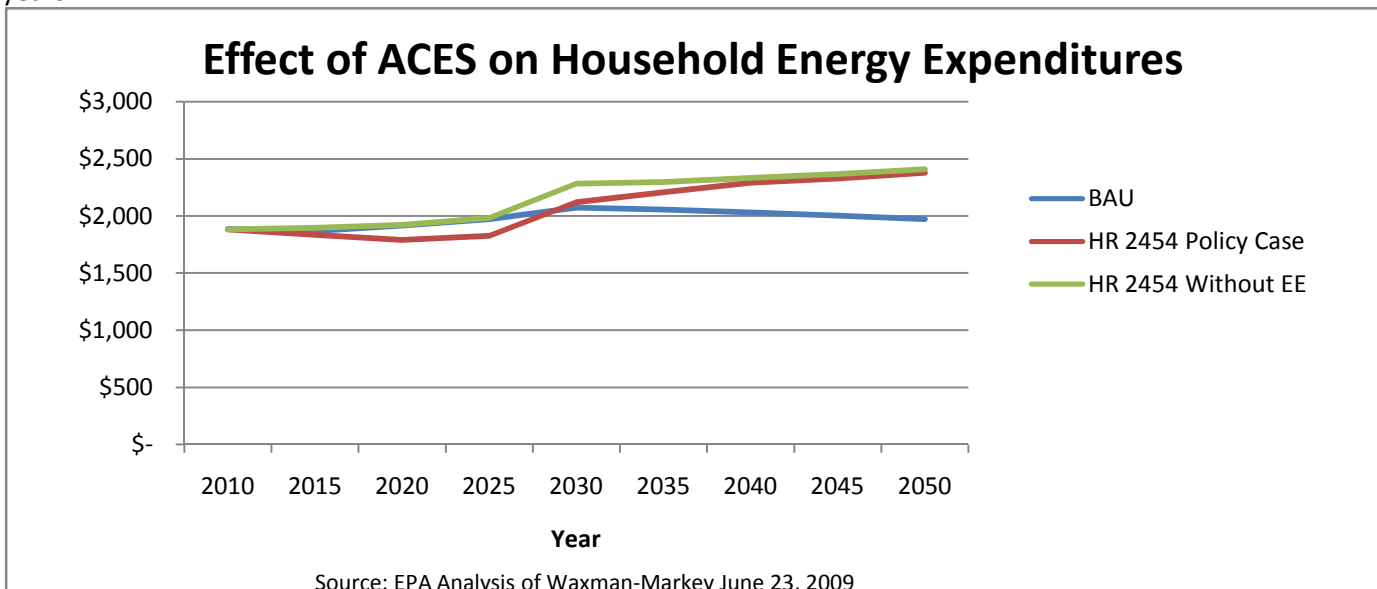
Energy efficiency saves money by reducing household and business energy costs. Perhaps the most compelling expression of this fact is that, according to the U.S. Environmental Protection Agency, in 2025 the energy efficiency provisions in the American Clean Energy and Security Act of 2009 will **reduce average household energy expenditures by 8 percent** compared to ACES without EE measures, **saving the average American household about \$154 per year.**

## Questions about Cost:

Due to the limitations of economic modeling, no single analysis can predict the precise impacts of climate legislation. The following analyses are based on the EPA Analysis of the American Clean Energy and Security Act of 2009, released June 23<sup>rd</sup>, 2009.<sup>1</sup>

### Would current climate legislation raise household energy bills?

While it is true that ACES would increase the unit *price* of carbon-intensive resources, it would reduce overall *household energy expenditures* in the early years. This is because energy efficiency provisions in ACES would reduce the amount of energy that Americans need to maintain their lifestyles while customer rebates from utilities could further return money to customers. Together, ACES would decrease average household energy expenditures by 7 percent in 2020 relative to business as usual - an average savings of about \$122 per household. Energy efficiency provisions play a keystone role in achieving household savings: the EPA estimates that ACES without energy efficiency provisions would result in a net cost, rather than savings, to households in 2020. After 2030, ACES would cause household energy expenditures to rise above business as usual, though energy efficiency programs would continue to contain costs. If energy efficiency provisions were funded in full past 2030, we could see a lesser increase in household energy expenditures in the later years.



For a discussion of how the EPA analysis, used above, compares with other studies, see the Congressional Research Service report comparing ACES cost estimates from seven studies.<sup>2</sup>

### Would a climate bill raise gas prices?

EIA projects that gas prices will rise to \$3.82 per gallon in 2030 *without* the passage of climate legislation. Enacting climate change legislation could increase gas prices by 7.5 percent. But EIA also projects that the average fuel economy of cars and light trucks on the road will rise from 20.5 to 28.9 mpg by 2030, an increase of 41 percent -- and that's before factoring in new fuel economy standards that the administration is setting. Thus, even as fuel prices rise, the cost of driving a car should stay about the same (and, if you drive a plug-in hybrid vehicle by 2030, your fuel costs will be lower.) In fact, drivers will pay about \$260 less than they paid in 2008 to drive just as far.<sup>3</sup>

<sup>1</sup> U.S. Environmental Protection Agency, *American Clean Energy and Security Act of 2009 (HR 2454)*, June 2009: <http://www.epa.gov/climatechange/economics/economicanalyses.html>

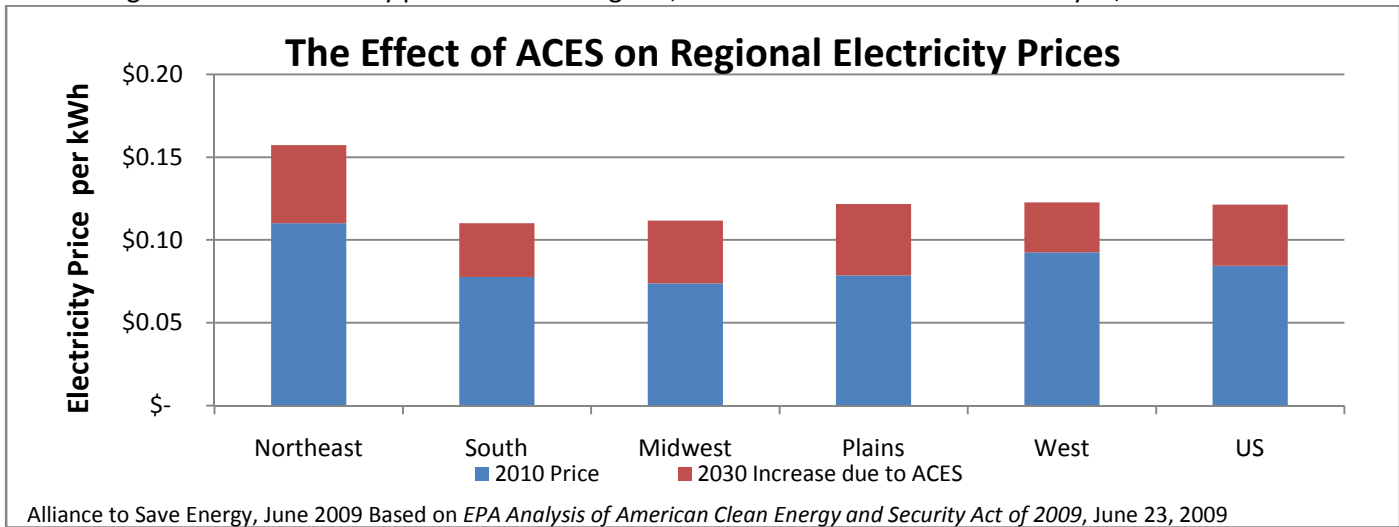
<sup>2</sup> Congressional Research Service, *R40809 - Climate Change: Costs and Benefits of the Cap-and-Trade Provisions of H.R. 2454*, September 2009: <http://ncseonline.org/NLE/CRS/abstract.cfm?NLEid=2233>

<sup>3</sup> Alliance to Save Energy analysis based on: EPA, *Light Duty Automotive Technology and Fuel Economy Trends: 1975 through 2008*: <http://www.epa.gov/otag/cert/mpg/fetrends/execsum-table-november2008.xls>; EIA, *Petroleum Produce Prices*, March 2009: [http://www.eia.doe.gov/oiaf/aeo/excel/aeotab\\_12.xls](http://www.eia.doe.gov/oiaf/aeo/excel/aeotab_12.xls); EPA, *American Clean Energy and Security Act of 2009 (HR 2454)*, June 2009:

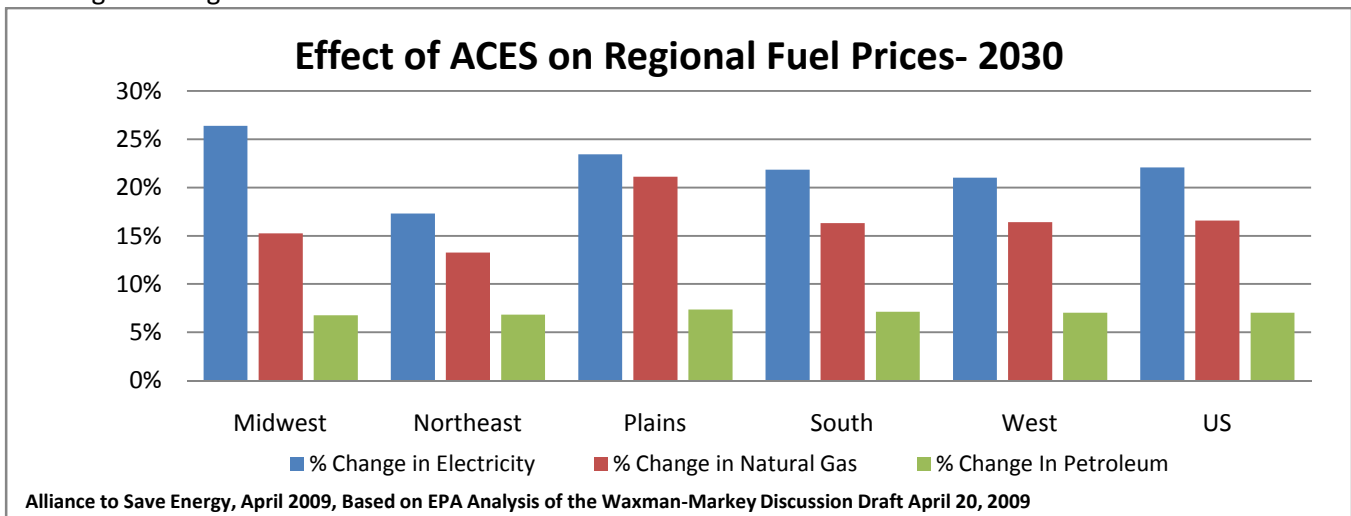
### How would a climate bill affect my region?

Taken together, regional differences in the impact of climate legislation are modest. Recent studies by the National Bureau of Economic Research (NBER) and Resources for the Future (RFF) indicate that transferrable consumer goods make up the majority of the impacts and that regional variations in the cost of each fuel counter-balance one another to create a uniform impact. Both studies estimate that the change in annual income would vary by less than 0.4% among regions. In addition, these studies do not account for allowance allocations returned to states and consumers, many of which would further benefit more impacted regions.

The effect of climate legislation fuel expenditures in each region will vary by carbon intensity, baseline prices and baseline consumption. The carbon intensity of electricity, for example, varies greatly across the United States, so regions using more GHG polluting electricity sources would pay relatively more for carbon permits. In absolute terms, however, electricity prices are currently lower in high-emitting regions because our market has not put a price on cheap, dirty fuels. Thus, a climate bill would cause a greater *relative* increase in prices in the major emitting regions, but would not result in a greater final electricity price for those regions, as demonstrated in the EPA analysis, below:



As for other fuels, petroleum price increases will be similar across all regions and natural gas prices would vary slightly from region to region:

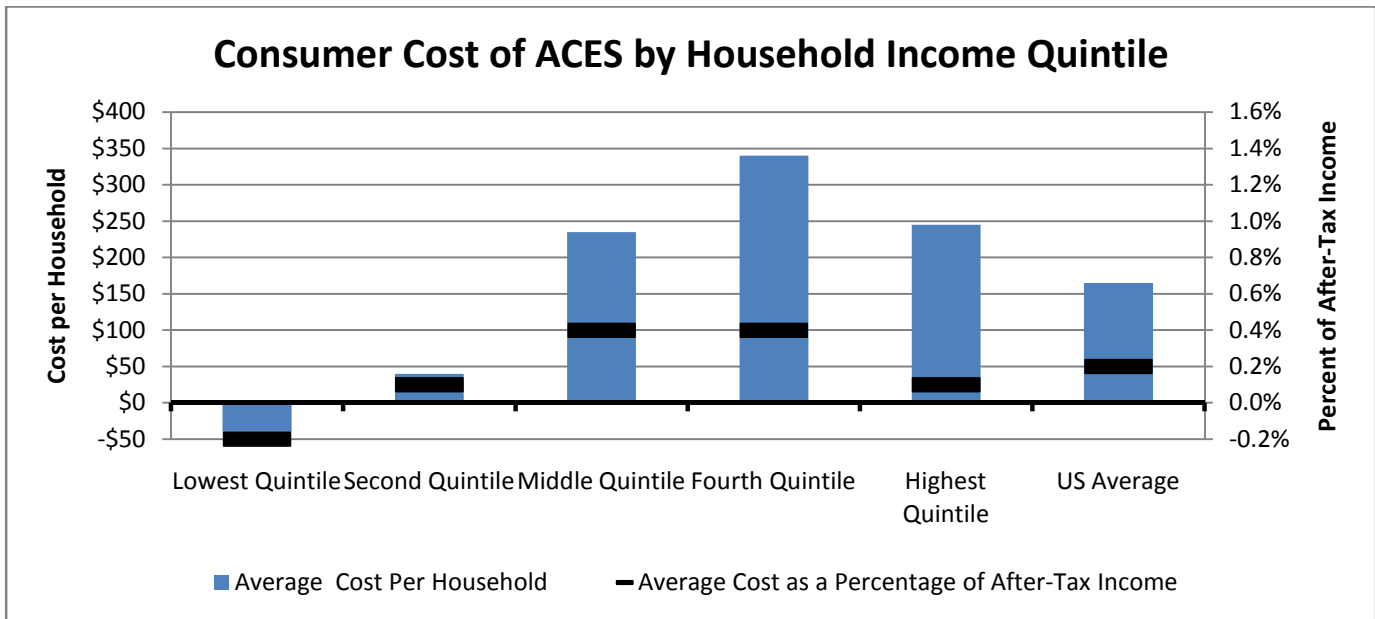


<http://www.epa.gov/climatechange/economics/economicanalyses.html>; DOE, 2009 Transportation Energy Data Book, June 2009: [http://www.cta.ornl.gov/data/tedb28/Spreadsheets/Table8\\_07.xls](http://www.cta.ornl.gov/data/tedb28/Spreadsheets/Table8_07.xls)

Fuel prices alone do not tell the full story of energy costs. Regional disparities in *energy consumption* will have a major impact on household energy expenditures. Despite uniform price increases across the country for natural gas, for example, customers in colder regions are likely to consume more and, thus, spend more on natural gas to heat buildings than customers in warmer climates. For this reason, energy efficiency improvements have a key role in reducing energy consumption and lowering household energy expenditures. Both House and Senate climate bills allocate allowances to building retrofit and low income weatherization programs to ease such regional disparities. In addition, transition assistance provided directly to low-income households and energy-intensive trade-vulnerable industries would further ensure that climate legislation is equitable across the United States.

**How would a climate bill impact low income populations?**

Low-income assistance is a necessary component of broad-scale climate legislation. Because low-income households spend proportionally more on energy than average-income households, any direct increase in energy prices would likely have a regressive effect. Both House and Senate climate bills include assistance to low-income consumers through allowances for tax rebates, general energy rebates, and state-level funds dedicated to low-income energy efficiency. As a result of these policies, the Congressional Budget Office (CBO) estimates that ACES would save households in the lowest 20 percent of income an average of \$40 per year on overall expenditures in 2020, while costing the average American household \$175, relative to business as usual.<sup>4</sup> The following chart outlines costs, in absolute and proportion of after-tax income terms, by income quintile:



For another source on the distribution of allowances to low-income households, see the Resources for the Future report, *The Incidence of US Climate Policy*.<sup>5</sup>

<sup>4</sup> Congressional Budget Office, *The Estimated Costs to Households From the Cap-and-Trade Provisions of H.R. 2454*, June 2009: <http://www.cbo.gov/doc.cfm?index=10327>

<sup>5</sup> Resources for the future, *The Incidence of US Climate Policy: Alternative Uses of Revenues from a Cap and Trade Auction*, June 2009: <http://www.rff.org/RFF/Documents/RFF-DP-09-17-REV.pdf>

## Other Questions about Climate and Energy Provisions:

### Do the climate and energy bills *require* home energy improvements prior to sale?

Legislation on both sides of the Hill includes provisions that would facilitate energy audits and efficiency improvements in existing buildings. However, none of the current bills would mandate improvements for existing homes and buildings. ACES (the House Energy and Climate bill), ACELA (the Senate Energy Bill) and CEJAPA (the Senate Climate Bill) would together enact energy standards for new buildings, energy labels for new and existing buildings, and incentives for energy improvements in new buildings. For clarification:

ACES (Section 202) and ACELA (Section 241) would require the national development and state implementation of **building codes** which will enforce smarter energy use in the construction of new buildings. These provisions do not apply to existing buildings.

ACES would direct DOE to develop a pilot **building energy labeling program** for different new building types and encourage the adoption of the labels (Section 204). The Senate ACELA bill includes a similar provision for all – new and existing – building types. The labels would serve as a tool to help prospective homeowners and tenants make informed decisions about building energy use, much like vehicle and appliance efficiency labels. Building labels would also allow current homeowners and builders to make long-term efficiency investments knowing that the value of the investment could be reflected in the value of the building.

ACES (Section 201), CEJAPA (Section 164), and ACELA (Section 262-265) would establish DOE program to facilitate and fund **home and commercial energy retrofits**. The Retrofits for Energy and Environmental Performance (REEP) program contained in ACES and ACELA would provide performance-based grants to homeowners and commercial building owners.

### Do energy efficiency programs increase the federal deficit?

In Congressional Budget Office (CBO) budget impact estimates, energy efficiency programs cost more to the federal government than direct payments to taxpayers. The CBO methodology does not account for the benefits of energy efficiency programs, however.

CBO uses a specific set of principles to estimate the cost of legislation to the U.S. government. It does so to establish consistency in implementing congressional rules against legislation that increases the federal deficit. In climate legislation, CBO accounts for the impact of each allowance allocation differently, depending on its specific ends. While the cost to industry of buying allowances reduces taxable income and thus reduces revenue to the government (CBO assumes, by 25% of the amount of reduced income), giving allowances to businesses or consumers yields the same amount of revenue, according to the CBO, because it creates taxable income. Thus, allowances that are given to individual taxpayers do not create a cost to the government.

For specified programs, however, different rules apply. The CBO does not estimate tax revenue from allocations to *specified programs*. Therefore, allowances that are allocated to energy efficiency programs are estimated to cost the government one quarter on every dollar spent, a cost that would have to be recouped elsewhere in the bill to maintain deficit neutrality.

CBO budget calculations are incomplete because they do not account for the benefits of the energy efficiency programs to the U.S. economy. While funds directly applied to reducing energy bills are assumed to increase taxable income and hence tax revenues, funds that go to energy efficiency programs that would reduce utility bills for years to come are assumed not to affect revenues. This seemingly minor distinction has dramatic implications for climate legislation. Direct payments will be favored over energy efficiency programs as long as energy efficiency programs are counted as costing the government more. As such, the current CBO methodology obstructs energy efficiency programs that would decrease consumer energy bills, increase federal revenues, and most importantly, reduce the costs of mitigating climate change.

*The Alliance to Save Energy is a coalition of prominent business, government, environmental and consumer leaders who promote the efficient use of energy worldwide to benefit consumers, the environment, the economy, and national security. For more information please contact Alliance policy staff at (202)857-0666 or [info@ase.org](mailto:info@ase.org).*