

Fact Sheet

Energy Efficiency in Existing Buildings: New National Policies

Building Energy Efficiency

Buildings consume about 40 percent of all energy used in the United States and are responsible for about 40 percent of all U.S. carbon dioxide emissions. Efficient buildings reduce the speed and severity of global warming, lessen demand on the power grid, decrease stress on natural gas supplies, improve local air quality, and save consumers money.

Improving energy efficiency in existing buildings is a key component of national energy efficiency policy. While new building design and construction is the least-cost way to improve building energy efficiency, only 2 percent of the building stock is replaced each year.¹ Thus, advancing energy efficiency in existing buildings represents an important opportunity to address immediate energy and climate challenges.

Why legislation for existing buildings?

Investing in energy-efficient features has demonstrated cost-savings potential, yet significant market barriers prevent the full realization of cost-effective energy efficiency. Split-incentives, for example, regularly occur when the person making capital investments does not pay the energy bills (such as in a landlord-tenant relationship), so he or she has little incentive to invest in energy-saving appliances and equipment. Similarly, prospective property sellers may not be confident that they will own a property long enough to see a return on their investments or that the value of energy efficiency improvements will be transferred into property value at point of sale. Moreover, even those purchasers who would see the full return on their investment face informational barriers that prevent well-informed decision-making about product and property energy use. National legislation for existing buildings can help overcome these market barriers and increase cost-effective investment in energy efficiency.

Existing National Policies

National programs and policies already in place significantly improve energy efficiency in existing buildings. Appliance and lighting standards, for example, set baseline energy-efficiency levels, reducing informational barriers and leading to market transformation for energy-efficient products. Similarly, tax-credits, appliance rebates, and low-income weatherization programs reduce barriers to investment by reducing the high upfront cost for energy efficiency. Each of these programs requires continued improvement and support.

Proposed National Policies

Complementing those national policies already in place, the House of Representatives-passed American Clean Energy and Security Act (ACES) and the Senate Environment and Natural Resources committee-passed American Clean Energy Leadership Act (ACELA) authorize new policies intended to advance energy efficiency in existing buildings. These policies include:

¹ EIA, *Annual Energy Outlook 2009*, Table A4, Table A5, Projections of building stock:
http://www.eia.doe.gov/oiaf/servicerpt/stimulus/excel/aeostimtab_4.xls;
http://www.eia.doe.gov/oiaf/servicerpt/stimulus/excel/aeostimtab_5.xls

Energy Efficient Retrofits

Both ACES and ACELA contain provisions to facilitate retrofits in existing buildings. The Retrofits for the Environmental and Energy Performance (REEP) (ACES Section 202) and State Energy Efficiency Retrofits (ACELA section 262) provisions would provide grants to residential and commercial building owners for building retrofits. These grants would be administered by State Energy Offices. The programs would prescribe levels of financial support for certain retrofits based on the building type, the level of energy savings achieved, and whether the savings estimates are based on designed or demonstrated energy savings. By providing grants to buildings ineligible for low-income weatherization, these provisions would expand the potential for energy efficiency retrofits in a larger pool of buildings.

Building Labeling

Section 203 of ACES contains a provision to establish a building energy performance labeling program. The proposed building labels would display achieved or designed performance data on building energy consumption based on recommendations from the Environmental Protection Agency (EPA). In addition, the EPA would work with State Energy Offices to encourage the adoption of the building energy labels and with the Department of Energy (DOE) to develop a business and consumer education program to increase awareness about building energy efficiency and the labeling programs. A late amendment to ACES prevented the building labeling program from applying to existing buildings, but the corresponding ACELA provision (section 281) still applies to both new and existing buildings. ACELA section 281 also has a requirement for some federal buildings to implement the building information program. Building labels have great potential to increase consumer awareness and reduce informational barriers about building energy consumption, thus contributing to lasting energy savings.

Energy Efficient Mortgages

Section 289 of ACES contains provisions that would encourage greater utilization of energy efficient mortgages. Energy efficient mortgages incorporate estimated energy cost-savings from energy-efficiency improvements into the calculation for a borrower's mortgage eligibility, thus allowing the borrower to either finance energy efficiency improvements or qualify for a larger mortgage. There is no corresponding provision in ACELA. Energy efficient mortgages could increase consumer awareness of building energy consumption and provide financing for energy efficiency upgrades. More information is necessary, however, to estimate the likely penetration of the additional financing from energy efficient mortgages.

Property Assessed Clean Energy Bonds

Several sections in ACES could enable – though do not explicitly authorize – Property-Assessed Clean Energy (PACE) bonds, a type of municipal clean energy financing. PACE bonds would allow property owners to finance clean energy efficiency retrofits through a loan voluntarily attached to the borrower's property tax bill. The goal of PACE financing is to provide secure, long-term loans that could be transferred along with the sale of the property in order to accelerate investment in energy efficiency retrofits. Currently, several states have passed or are considering bills that would allow for this type of municipal financing, and some are running pilot projects. By enabling streamlined and transferrable energy efficiency financing with federal bond guarantees, PACE bonds could make home retrofits more attractive to property owners and lead to increased investment in energy efficiency upgrades.

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 policyinfo@ase.org.