



Financing an Energy Efficient Economy

Buildings in the United States are responsible for nearly 70 percent of total electricity consumption and 40 percent of total greenhouse gas emissions. Because much of our existing building stock is unnecessarily wasteful, retrofitting existing homes and offices for energy efficiency can dramatically reduce energy use and cut greenhouse gas emissions. Retrofit projects are also smart investments. Most efficiency measures pay for themselves in under ten years, with many offering a one to three year payback. Energy efficiency is also an important form of consumer protection by cutting homeowners' utility bills, and improving access to capital can help bring greater supplies of both renewable energy and energy efficiency on line, more affordably for consumers.

Yet, in spite of the many benefits of building retrofits for deploying energy efficiency and other clean energy, real market barriers continue to confront the development of a vibrant retrofit industry. Two key obstacles to scaling-up demand for retrofits are high up-front project costs, even when justified by long term savings, and a lack of ready access to low-cost financing. The federal government can help address these issues by lowering the risk and cost of project financing, supporting the proliferation of innovative financing and cost-recovery mechanisms at the state and local levels, and convening a broad dialogue with the financial services and insurance communities on establishing the information base needed to mainstream efficiency-related financial products.

Our Recommendations

- ***Establish an independent green bank with an initial capitalization of at least \$10 billion and a mandate to fund and support energy efficiency projects, with a particular focus on improving the energy efficiency of buildings.***
- ***Enact enabling legislation to spur broader implementation of Property Assessed Clean Energy (PACE) bonds, which tie repayment of clean energy loans to the property title, as well as mechanisms that promote “on bill” financing of building retrofits.***

A Green Bank to Finance Energy Efficiency and Clean Energy Generation

An independent, national “Green Bank” could provide low-cost public financing or credit enhancements for retrofit programs, as part of a larger clean energy financing strategy targeting capital-intensive renewable and energy efficiency projects. The bank could offer a number of financing products to support efficiency including direct loans, letters of credit, interest rate buy-downs and loan guarantees. This new entity could significantly help overcome barriers to project finance and offer new opportunities for establishing innovative energy efficiency financing mechanisms. Energy efficiency projects, which have development timelines measured in months rather than the years required for renewable and other low carbon energy projects, should have special priority within the green bank approval process.

Green bank credit supports will include a wide-ranging toolbox that will assist states, localities, and the private sector in rolling out innovative mechanisms to finance building energy efficiency retrofits including municipal bonds, utility loans with on-bill repayment, expanding the secondary market for energy efficiency lending, and improving incentives for commercial banks to provide loans for retrofits as the green bank lowers the technology risk associated with a lack of historic performance data.

The Clean Energy Deployment Administration (CEDA), a “green bank” proposal currently in the Senate energy bill, could help. CEDA is envisioned as a financing institution whose purpose is to promote access to stable, long-term financing of clean and efficient energy technologies. In its current form in the Senate, CEDA is located in the Department of Energy; in the House climate and energy bill it is an independent public-private entity with multi-agency oversight. In both versions, its purposes extend to providing financing for energy efficiency technologies, including “end-use efficiency in buildings.”

We recommend strengthening and expanding CEDA so that it provides critical financing tools not only for energy efficiency technology innovation, but also for efficient product manufacturing and energy efficiency project development. ***This would require three important additions to CEDA:***

1. We recommend incorporating what is now the IMPACT Act, providing \$30 billion in revolving loans to small and midsize manufacturers to retool and provide the component parts for the renewable and energy efficiency technology industries, into CEDA. (IMPACT is currently in front of the Commerce committee in the Senate, but its provisions were adopted wholesale into the Waxman-Markey bill as the Manufacturing Revolving Loan Fund.)
2. We recommend that CEDA be amended to provide credit support for taxable debt obligations originated by state, local, and private sector entities that enable building owners to significantly increase the energy efficiency of their buildings. This would specifically promote PACE-type programs.
3. And, we recommend that funds within CEDA be specifically set aside for a revolving sub-fund to be devoted exclusively to support residential energy efficiency projects undertaken by state, local and private sector entities, serving middle-income families (incomes above 150% of the poverty rate, but below 200% of median income). These families are not otherwise served by the Weatherization Assistance Program or by state rebate and tax incentive programs.

Property Assessed Clean Energy “PACE” Bonds

“Clean-energy assessment districts,” sometimes known as the PACE model, or Property Assessed Clean Energy, are being piloted in a few locations around the country, including Berkeley, CA, and Babylon, NY. This approach involves establishing a municipal financing district that enables individual building owners in the district to repay their loan over an extended term via a special assessment on their property tax bill or in some cases via a monthly municipal services fee, or “benefits assessment.” Initial loan capital is usually raised through a municipal bond. The financing can be secured by a lien on the property resulting in very low default risks, while the repayment obligation transfers with property ownership.

Property Assessed Clean Energy (PACE) Financing will increase investment in the built environment to facilitate widespread energy efficiency retrofitting that otherwise might be inaccessible to building owners, and will accelerate the transition to a low carbon economy. The PACE bond market, in combination with federal loan guarantees, revolving loan funds, or other credit enhancements, has the potential to dramatically accelerate retrofitting America's building stock by improving access to capital and driving down the cost of retrofits to consumers. It is estimated that the potential market for PACE bonds could exceed \$500 billion, leveraging vastly more private capital investment into the efficiency of our nation's buildings.

PACE financing provides benefits and mitigates financial burdens for all parties. Benefits include:

- For the nation: PACE financing facilitates the transition toward energy independence and reduces greenhouse gas emissions, it creates jobs immediately, it reduces fiscal costs, and increases the probability of success.
- For property owners: PACE substantially reduces upfront costs for retrofits, improves the return on investments by capturing positive cash flow retrofits, and lowers energy bills immediately.
- For states and cities: PACE increases local investment flows with no credit or general obligation risk as the obligation is the liability of the real estate owner, it creates quality local employment, offers affordable greenhouse gas reductions, and uses voluntary tools so that only those real estate owners who opt in must pay.
- For the lender: PACE broadens the market for financial services with virtually no risk of capital impairment as property tax liens offer very senior debt repayment and historically de minimis loss rates of less than one percent.

Efficiency Financing in Proposed Legislation

American Clean Energy and Security Act (ACES): ACES creates the Clean Energy Deployment Administration (CEDA), a “green bank” established to serve as a government-owned independent corporation. Authorized for an initial capitalization of \$7.5 billion, CEDA includes as one of its stated goals to support the “sufficient availability of financial products” to encourage and enable the private sector to make energy efficiency improvements in residential, commercial and industrial settings. CEDA should be expanded with enhanced PACE provisions to help ensure that energy efficiency financing attracts long term capital and matures into a robust and affordable market.

American Clean Energy Leadership Act (ACELA): ACELA also includes a “Green Bank” provision similar to the one in ACES, with some differences in authority and institutional structure. One notable strength of the House proposal is that it creates an independent agency housed outside of the Department of Energy. This structure would likely speed deployment of projects. In addition, the House version specifically ensures that investments will flow to a diverse array of technologies, further encouraging energy efficiency project development. Additional enhancements would include consideration of supply chain investments through the IMPACT act, and enhanced PACE provisions.

For more information please contact: Tina Ramos
Phone: 202-481-8117 / Email: tramos@americanprogress.org