v. Incentives and Finance Mechanisms for Energy Efficiency

Description

States offer a diverse portfolio of financing and incentive approaches that are designed to address specific financing challenges and barriers and incentivize specific markets and customer groups to invest in energy efficiency. These programs include revolving loan funds, energy performance contracting, green banks, tax incentives, rebates, grants, and other incentives.

Policy Mechanics

Design

Revolving loan funds provide low-interest loans for energy efficiency improvements. The funds are designed to be self-supporting. States create a pool of capital that "revolves" over a multi-year period, as payments from borrowers are returned to the capital pool and are subsequently lent to other borrowers. Revolving loan funds can be created from several sources, including public benefits funds (PBFs),[109] utility program funds, general state revenues, or federal funding sources. Revolving funds can grow in size over time, depending on repayment interest rates and program administrative costs.

[109] PBFs are dedicated funds used for supporting research and development of energy efficiency and renewable energy projects. Funds are normally collected either through a small charge for every electric customer or through specified contributions from utilities.

Energy performance contracting allows the public sector to contract with private energy service companies (ESCOs) to provide building owners with energy-related efficiency improvements that are guaranteed to save more than they cost over the course of the contracting period. ESCOs provide energy auditing, engineering design, general contracting, and installation services, and help arrange project financing.[110] The contracts are privately funded and do not involve state funding or financial incentives.

Green banks offer an emerging approach used by an increasing number of states to evolve away from traditional state funded incentive programs. They use creative financing to bring and leverage private capital to develop projects and markets. Green banks can be self-sufficient and manage their seed capital in perpetuity. They do not require ongoing funding from the legislative and state budget process once they are capitalized. Because green banks are effectively nonprofit organizations, they can offer a capital cost far lower than any other source of capital available in the market. States can consolidate their existing incentive programs and resources under a green bank framework.[111]

State tax incentives for energy efficiency are available as personal or corporate income tax credits, tax exemptions (e.g., sales tax exemptions on energy-efficient appliances), and tax deductions (e.g., for construction programs). Tax incentives aim to spur private sector innovation to develop more energy efficient technologies and practices and increase consumer choice of energy-efficient products.[112]

Rebates (also known as "buy-downs") are used to promote demand-side energy efficiency reductions by providing direct incentives to customers who purchase or make upgrades to approved efficient appliances or retrofit their homes (e.g., a utility may refund part of the cost for a homeowner to improve attic insulation or purchase a high-efficiency furnace). Funding for rebates may come from PBFs, direct grants, or utility program funds.

Grants from the federal government, state government, regional agency, or private source may be used to start or finance energy efficiency programs. A grant may be used to provide funding for a specific construction project (e.g., retrofit of a school), finance a rebate program, initiate a revolving fund, conduct a behavior change campaign (e.g., educate public about the benefits of off-peak energy use), or any other type of program that meets the specific grant requirements.

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[110] U.S. EPA, *Integrating State and Local Environmental and Energy Goals: Energy Performance Contracting - Fact Sheet* (U.S. Environmental Protection Agency, September 2004).
[111] U.S. EPA, *Clean Energy-Environment Guide to Action* (U.S. Environmental Protection Agency, 2015), accessed March 10, 2016. Available at: http://epa.gov/statelocalclimate/resources/action-guide.html.
[112] Elizabeth Brown, Harvey Sachs, Patrick Quinlan, and Daniel Williams. "Tax Credits for Energy Efficiency and Green Buildings: Opportunities for State Action." *American Council for an Energy Efficient Economy* (2002).

Authority

Financial mechanisms and incentives for energy efficiency are run by utilities and state and local governments. Utilities primarily offer rebates, grants, and loans. Personal, corporate, sales, and property tax incentives are mainly offered by state and local governments.[113]

Implementation Status

Financial mechanisms and incentives for energy efficiency exist in all 50 states, with the most prevalent financial mechanisms and incentives for energy efficiency being rebates and loan programs in place. There are 50 tax incentives and over a thousand rebate, grant, and loan programs that help finance and deliver electricity savings.[114] Texas LoanSTAR, also known as the Loans to Save Taxes and Resources program, began in 1988 as a $98.6 million retrofit program for energy efficiency in buildings (primarily public buildings such as state agencies, local governments, and school districts). As of January 2014, the program has funded over 237 loans, totaling more than $395 million. The program has also saved over $419 million and reduced CO_2 emissions by 3.7 million tons.[115]

[113] "Programs," Database of State Incentives for Renewables & Efficiency, accessed March 10, 2016. Available at: http://programs.dsireusa.org/system/program.

[114] Ibid.

[115] Texas State Energy Conservation Office, "LoanSTAR Revolving Loan Program," accessed March 24, 2016. Available at: http://www.seco.cpa.state.tx.us/ls/.