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ENERGY EFFICIENCY FINANCING

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You asked for a summary of the presentations made on energy efficiency financing at the August 2012 National Conference of State Legislatures annual meeting.

SUMMARY

There were two presentations on this topic. Rima Oueid, a policy advisor in the Office of Energy Efficiency and Renewable Energy in the US Department of Energy (DOE), described DOE's programs and how states are using DOE funds to support revolving loan funds and loan loss reserves for clean energy (energy efficiency and renewable energy) projects. She also discussed the creation of "clean energy development entities." These entities, such as the Connecticut Clean Energy Finance and Investment Authority, are designed to promote public/private partnerships and to leverage private capital to finance clean energy projects. DOE is also supporting a network of state and local officials to promote energy efficiency, including innovative ways of financing energy efficiency.

Brian Cavey, vice president for legislative affairs at the National Association of Rural Electric Cooperatives, made the second presentation. He described a low-interest loan program for energy efficiency improvements that is repaid on the borrower's electric bill and legislation pending before Congress that would authorize a similar national program.

FINANCING ENERGY EFFICIENCY AND CLEAN ENERGY

DOE Programs

Rima Oueid began her presentation by describing DOE's Energy Efficiency Block Grant Program and State Energy Program. The former was created under the American Recovery and Reinvestment Act (ARRA), which provided \$3.2 billion for public sector efficiency initiatives. Among the most common uses of this money were energy efficiency retrofits and other efficiency investments for governmental buildings, improvements to traffic signals (to reduce congestion), and street lighting improvements. Other uses included energy audits, placing renewable technologies on government buildings, and investing in distributed (on-site) energy technologies. ARRA also substantially increased funding for the State Energy Program. In federal FY 10, funding was \$50 million; in contrast ARRA provided \$3.1 billion over its three year term.

Revolving Loan Funds and Loan Loss Reserves

Because ARRA provided a one-time funding increase, many states used part of the money they received to (1) establish or expand revolving loan funds and (2) establish loan loss reserve funds, both of which could be used to finance clean energy projects in the public and private sectors. Under the latter approach, the state uses public funding to cover part of the losses incurred by private parties making loans for clean energy projects, rather than making loans for such projects itself. Oueid noted that since most states were facing budget shortfalls when ARRA funding was available, they were interested in using these approaches to maximize the opportunity to recycle the funds they received under ARRA.

She noted that there are several opportunities for states in using revolving loans funds. As loans are repaid, the proceeds can be used to establish loan loss reserve funds. In addition, the increased use of performance contracting can facilitate the use of revolving loan funds for public buildings. Under performance contracting, a private party makes energy efficiency improvements to public sector and is paid based on the savings achieved by the improvements. OLR report [2011-R-0067](#) describes the use of performance contracting by Connecticut municipalities.

Clean Energy Development Entities

DOE is currently providing technical assistance to states to help them:

1. transition revolving loan funds into investment authorities (Oueid cited Connecticut's Clean Energy Finance and Investment Authority as an example of such an authority) or other clean energy development entities;
2. design public-private partnerships in efficiency financing and attract institutional investors; and
3. standardize financing products and develop secondary markets for these products.

An investment authority could use ratepayer, public, or private funds to originate loans for efficiency and renewable energy projects. Alternatively, it could provide credit enhancements such as a loan loss reserve fund. Additional financing mechanisms include (1) having a utility provide the capital for the projects and recovering its costs with on-bill financing and (2) having a third party provide the capital, with the utility servicing the loan.

The authorities or other "clean energy development entities" could reduce the cost of financing by packaging smaller loans. They could also reduce transaction costs and the cost of capital for suppliers of energy efficiency and clean energy technologies. Currently, renewable energy projects are financed individually and there is no integrated capital market. This results in a high cost of capital for project developers, which is passed onto consumers.

State and Local Energy Efficiency Network

DOE and the US Environmental Protection Agency have also worked with state and local governments to create the State and Local Energy Efficiency Action Network (www.seeaction.energy.gov) to further develop the financing market and promote cost-effective energy efficiency programs. The network, which currently has over 200 members, has working groups addressing such things as promoting energy efficiency in existing commercial buildings and through residential retrofits, industrial energy efficiency and combined heat and power (cogeneration), building energy codes, and financing solutions.

The financing working group has found that private investors have been unwilling to put up capital for energy efficiency investments because (1) deal sizes are often too small to be attractive; and (2) efficiency finance products have a limited history, meaning credit quality is not well understood and deal volume is uncertain.

The working group is seeking to remove financing barriers to energy efficiency through improved financing tools and mechanisms (loans, leases, and service agreements) that will allow for increased scale and leverage and the creation of secondary markets that will reflect a true assessment of risk, provide more liquidity, and reduce borrowing costs.

In its first year, the group is seeking to determine specific data, information, and structures that capital providers, loan originators, and service providers need to participate in energy efficiency lending. Subsequently, it will seek to:

1. increase the number and scope of energy efficiency retrofit projects where financial institutions, institutional investors, and capital markets fully participate in making energy efficiency investments;
2. facilitate market conditions under which these institutions provide standardized energy efficiency loans in the residential and small commercial sector at competitive rates that, over time, can move away from the need for subsidies by properly assessing the true risk of these products;
3. increase capital provided through institutional investors and secondary markets to provide liquidity and scale; and
4. encourage state regulators and agencies, as part of transition away from subsidies, to (a) allocate sufficient ratepayer funds to finance energy efficiency programs through credit enhancement and other mechanisms and (b) implement programs such as on-bill financing to reduce the cost of capital and increase the number of eligible customers who use such products.

ENERGY EFFICIENCY FOR RURAL CO-OPERATIVES

Brian Cavey made the second presentation. His association consists of consumer-owned electric co-operatives (co-ops). These co-ops, which are primarily located in rural areas, serve about 12% of the nation's population in 47 states (there are no co-ops in Connecticut).

Cavey noted that there is broad interest in energy efficiency among the co-ops. Efficiency can postpone the need to build expensive new generation facilities and reduce electric bills for co-op members. Nearly all (96%) of co-ops have efficiency programs

Cavey described a program that was authorized in South Carolina under S.C. Act 141, 2010 that provides low interest loans for efficiency improvements. The act created the Help My House program, through which the Central Electric Power Co-op and the US Department of Agriculture's Rural Utility Service (RUS) have provided loans for 100 homes. Under the program, a co-op member first requests an energy audit from his or her co-op, which is performed by a trained expert who identifies proposed improvements and the amount of time they would take to be paid back through energy savings. Members who choose to participate select a contractor who makes the improvement. The home is audited again and a successful audit is required before the loan becomes due. The loan is attached to the member's electric meter and is repaid on his or her electric bill. Typically, two-thirds of the savings is used to repay the loan, with the member receiving the remaining savings during the loan's term and all of the savings once it is paid.

Cavey described legislation pending before Congress that would authorize loans to co-ops to finance similar programs on a national level. Participating coops would operate the program, which would provide loans to members. The co-op would arrange for audits for members, which would identify efficiency improvements with paybacks of 10 years or less. The member would hire contractors to install improvements and the loan would be repaid on the member's electric bill. The co-op would repay RUS over 10 years. The proposal is in various versions of the farm bill, which are currently before Congress.

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