Tools for Designing & Implementing Better Finance Programs

November 21st, 2013

Molly Lunn
U.S. DOE’s State and Local Policy & Technical Assistance Team
Agenda

• Introduction to DOE Finance Resources for Local & State Governments – Molly Lunn, U.S. DOE

• New Resources – Glenn Barnes and Jennifer Weiss, Environmental Finance Center at The University of North Carolina
  • *Clean Energy Finance Program Structure Options*
  • *Clean Energy Finance Program Return on Investment Modeling Tool (Residential Energy Efficiency)*

• Q&A
The State & Local Opportunity

- **DOE & EERE cannot achieve its clean energy goals alone**
- **State and local policies and actions are critical to advancing our mission, and in many instances these entities are already leading the way**
- **One avenue through which DOE supports and accelerates state and local government leadership, and in turn its own mission, is by capitalizing on the unique mix of roles that WIP can play as convener, unbiased technical resource, and innovation enabler**
DOE’s State & Local Technical Assistance

Priority Areas
- Strategic Energy Planning
- Program & Policy Design and Implementation
- Financing Strategies
- Data Management and EM&V
- EE & RE Technologies

Resources
- General Education (e.g., fact sheets, 101s)
- Case Studies
- Tools for Decision-Making
- Protocols (e.g., how-to guides, model documents)

Peer Exchange & Trainings
- Webinars
- Conferences & in-person trainings
- Better Buildings Project Teams

One-on-One
- Level of effort will vary
- In-depth efforts will be focused on:
  - High impact efforts
  - Opportunities for replicability
  - Filling gaps in the technical assistance marketplace
State & Local Solution Center Finance Portal (includes pages for RLFs, QECBs, PPAs, ESPC)

Financing Clean Energy Upgrades in K-12 Schools (very relevant for local govts – covers internal cash, bonds, lease purchase, and other clean energy mechanisms)

Clean Energy Finance Guide for Residential and Commercial Sectors (covers range of topics including credit enhancement, commercial PACE)

Guide to Federal Finance Facilities for Clean Energy (includes programs at DOE, USDA, HUD, and Treasury)

www.eere.energy.gov/wip/solutioncenter/financing.html
New Resources Coming This Year

• Facelift to the **Finance Portal** in process now – December

• Finance 101 briefs – December & January
  - *Working with Financial Institutions* (webinar 12/5)
  - *EE Finance Primer*
  - *Credit Enhancement Primer*
  - *Internal RLFs*

• **Getting the Biggest Bang for the Buck: Exploring Rationales and Experimental Design Options for EE Finance Programs** – December

• **On-Bill Financing Program Design Analysis & Case Studies** – January

• **Recovery Act RLFs, LLRs, & IRBs: Analysis, Best Practices, and Recommendations for the Future** – Spring 2014
DOE Peer Exchange & Training

• 1-3 finance webinars offered each quarter
  – Typically focused on new resources or trends
  – Archived on Solution Center (including many 101s): www.eere.energy.gov/wip/solutioncenter/webinar_archives.html

• Better Buildings Finance Strategies Project Team
  – States & locals work w/DOE and peers to develop strategies for financing energy efficiency projects in their jurisdiction – members are asked to identify a desired energy efficiency finance outcome to work toward
  – DOE/LBNL leads monthly, web-based discussions, focusing on possible options and best practices in design and implementation
  – Learn more: www.eere.energy.gov/alliance/activities/public-sector-teams/finance-strategies
DOE One-on-One Assistance

• Accept applications for targeted one-on-one assistance

• Applications are reviewed and evaluated to determine the level of effort we will be able to provide based on:
  – Near-term and long-term impacts
  – Replicability for other jurisdictions
  – Demonstrated need for federal technical assistance due to lack of other available resources

• Examples include:
  – Comparing finance/funding options for a new or existing program
  – Design and implementation guidance for specific mechanisms, e.g., QECBs, on-bill finance, commercial PACE, RLFs, LLRs
How to Tap into These Offerings

• Visit the *State and Local Solution Center*
  www.eere.energy.gov/wip/solutioncenter/

• Submit an *application* for assistance
  www.eere.energy.gov/wip/solutioncenter/technical_assistance.html

• Sign up for *TAP Alerts*, our newsletter and mailing list, for updates on our latest and greatest
  TechnicalAssistanceProgram@ee.doe.gov
Presenters

Glenn Barnes
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Environmental Finance Center
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http://www.efc.sog.unc.edu/

Welcome to the New Environmental Finance Center Website!

The EFC at UNC is very pleased to launch our new website. Our new content management system is designed to make accessing EFC tools, publications, and other resources quick and easy.

A Guide to Customer Water-Use Indicators for Conservation and Financial Planning

This guide published by the American Water Works Association (AWWA) is an
About our Energy Technical Assistance
Session Objectives

• Learn about the key decisions in building a clean energy finance program

• Understand how to calculate expected returns on investment

• Review potential flows of funds for clean energy finance program
What Developing a Program Structure is NOT

- A simple multiple choice question:
  - Program Design A
  - Program Design B
  - Program Design C
What Developing a Program Structure is

- A series of choices
The Choices

- Program Sponsorship
- Suite of Services Offered
- Program Administration
- Geographic Scope of Program
- Sustainable Program Designs
## Program Sponsorship

<table>
<thead>
<tr>
<th>Sponsor</th>
<th>Potential Advantages</th>
<th>Potential Disadvantages</th>
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<tbody>
<tr>
<td>Governments</td>
<td>Stable institutions; Natural audience; Access to low cost capital</td>
<td>May lack energy finance experience; Restricted geographically; Stricter procurement rules</td>
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<tr>
<td>Non-Profits</td>
<td>Flexible in terms of customer base, services offered; No procurement rules; May enjoy greater level of trust</td>
<td>Limited access to start-up funds and debt financing</td>
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<tr>
<td>For-Profits</td>
<td>Flexible in terms of customer base, services offered; No procurement rules; May have good access to capital</td>
<td>May lack name recognition; Motives may be questioned</td>
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<tr>
<td>Utilities</td>
<td>Literally in the energy business; Large, stable organizations (IOUs); Access to customers</td>
<td>Munis and Coops have limited geographic scopes; Munis have procurement rules</td>
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Suite of Services Offered

- Focus could be only on the activities of the program sponsor itself (internally-focused programs)
  - Ad hoc energy improvements
  - Based on results of an audit or energy plan
  - Policy to do a limited number of projects each year
  - Investment in a large suite of energy improvements at one time
Suite of Services Offered

- **Energy audits and project identification**—using the energy expertise of the program to make recommendations on potential energy improvements at a facility;

- **Public education**—teaching members of the community about the value of energy improvements;

- **Targeting Recruitment**—meeting with facility owners and operators to encourage them to request energy audits and consider participation in the energy program that is offered;
Suite of Services Offered

- **Rebates**—one time or periodic payments that cover some or all of the cost of energy improvements on a facility;

- **Loans**—funds provided to pay for the cost of energy improvements. Typically these funds are offered at more favorable terms (lower interest rate, longer payback period) than loans from traditional lending institutions;

- **Energy concierge services**—providing individual consultations for parties that are implementing energy improvements.
Suite of Services Offered

• **Quality assurance of completed projects**—evaluating the work of contractors to ensure that energy improvements have been installed correctly and that they lead to expected energy savings;

• **Workforce development**—training contractors in the skills necessary to identify and install energy efficiency and renewable energy improvements and/or providing opportunities for contractors to receive energy-related certifications.
Program Administration Tasks

• Program marketing
• Public Education
• Identifying appropriate projects to receive program funding
• Approving a network of qualified contractors
• Training contractors and others in the workforce
• Reviewing work on completed projects for quality assurance;
• Loan underwriting and collection
• Providing customer service and concierge services to program participants
• Reporting, if necessary, for grants and other sources of seed funding
Program Administration

• Should sponsors administer their own programs? Hire an external program administrator? Hire multiple external program administrators?

• Depends on both the ability of the sponsor to provide the services and its willingness to do so
Geographic Scope of the Program

• Programs that serve a larger pool of potential customers have a better chance of covering ongoing costs
  – Economies of scale
  – Reduces duplication of effort
  – Easier for contractors and lending partners
Sustainable Program Designs

• All programs require
  – Start up funds to establish program structure, recruit partners and administrators, etc.
  – Seed funding for financial offering
  – Funds for ongoing administration

• Some program designs allow for seed funds to be used more than once and/or generate revenues
Internal Programs

Seed Funding Reused
• Internal revolving energy funds

Seed Funding Not Reused
• Ad hoc improvements
• Guaranteed energy savings contracts
External Programs

Seed Funding Reused
- Revolving loan funds
- Loan loss reserves

Seed Funding Not Reused
- Rebates
- Interest rate buy-down

* Use of fees and interest can generate funds for ongoing program administration even if the seed funding is not reused
Flows of Funds—Standard

- Taxes
- Enterprise fees
- Rate-payer capital
- Transfers from reserves
- Private donations
- Grants
- Debt from banks, government programs, or bonds
Flows of Funds—Unique to Energy Programs

- Avoided energy costs
- Power Purchase Agreements
- REC sales
- Rebates
- Tax credits
- System benefit charges
- Cap and trade credits
- P&I on loans
- P&I on assessments
- Fees for projects—contractor, loan origination, building owner
- Charges for services—audits, concierge, QA, workforce development
Please join us for the next TAP webinar:

Show Me the Money! Raising Investment Funds for Clean Energy Programs & Working with Financial Institutions

*Thursday, December 5, 2013; 2-3:30 p.m. EST*

Learn more at:

www.eere.energy.gov/wip/solutioncenter/webinars.html