U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy

Raising Investment Funds for Clean Energy Programs & Working with Financial Institutions

December 5th , 2013

Molly Lunn

U.S. DOE's State and Local Policy & Technical Assistance Team

Agenda

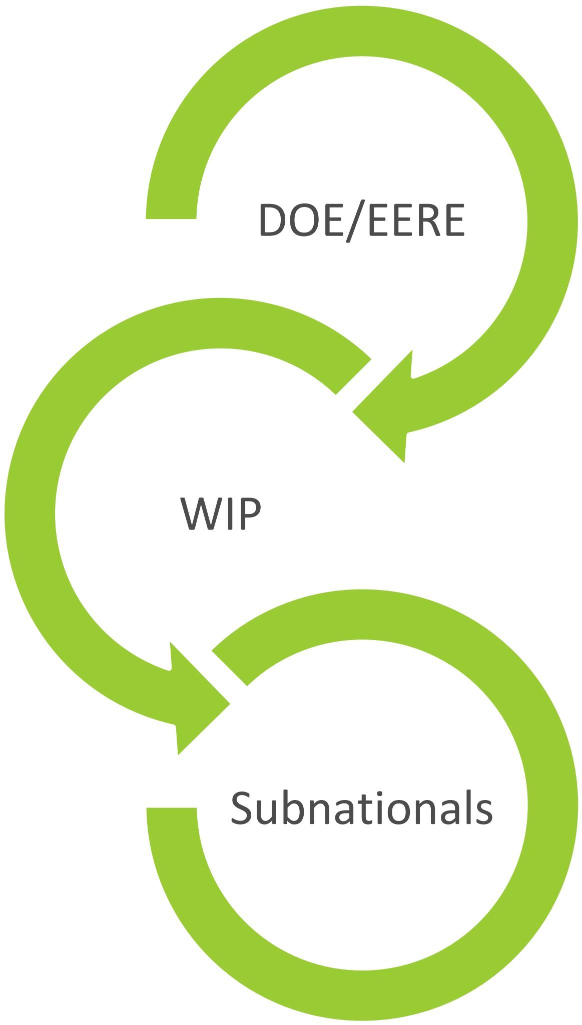
- Introduction to DOE Finance Resources for Local & State Governments – Molly Lunn, U.S. DOE

- New Resource! *Clean Energy Finance: Raising Investment Funds & Working with Financial Institutions* – Peter Meyer, President & Chief Economist, The E.P. Systems Group, Inc.; Glenn Barnes and Jennifer Weiss, Environmental Finance Center at The University of North Carolina

- 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

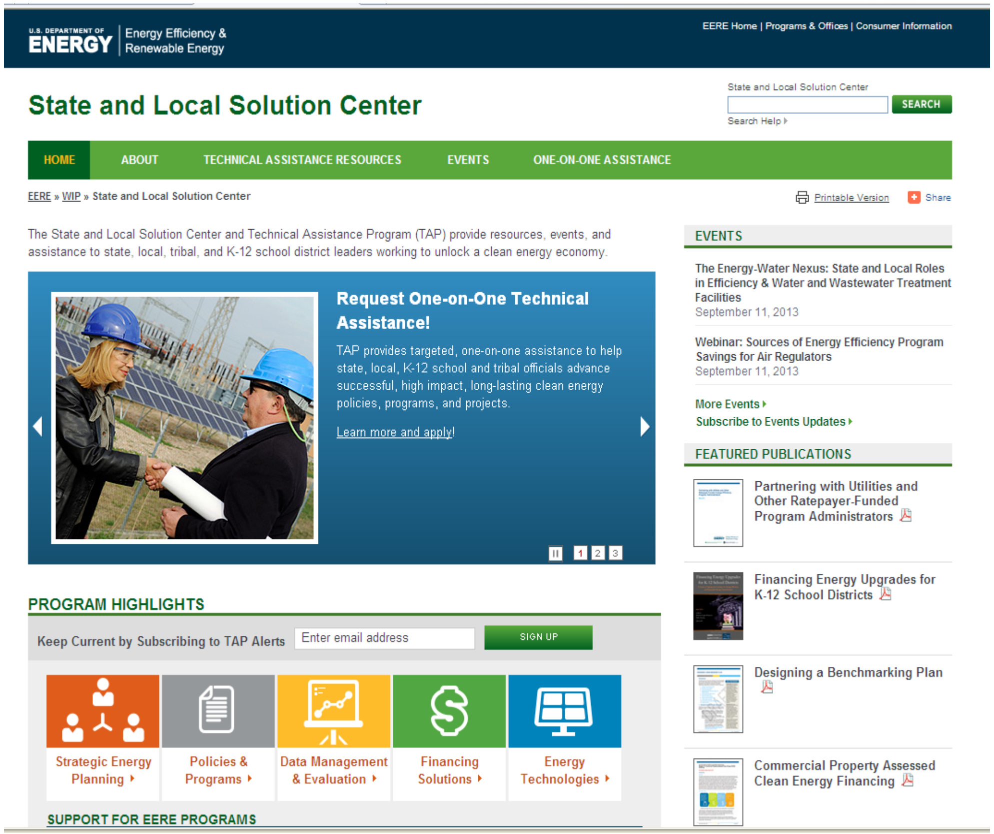
- **Webinars**
- Conferences & in-person trainings
- Better Buildings Project Teams

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*

DOE Finance Resources Available Now

- ✓ **[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
- ***Getting the Biggest Bang for the Buck: Rationales & Experimental Design Options*** – December
- Finance 101 briefs – December & January
    - ***EE Finance Primer***
    - ***Finance Program Structure Options***
    - ***Raising Investment Funds & Working with Financial Institutions***
    - ***Credit Enhancement Primer***
    - ***Finance Program ROI Modeling Tool – Residential EE***
    - ***Internal RLFs***
- ***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

Questions?

Please join us for the next webinar:

Energy Efficiency in Correctional Facilities & Opportunities for State Energy Office Engagement

Thursday, January 23, 2014; 2:00-3:30 p.m. EST

Learn more at:
www.eere.energy.gov/wip/solutioncenter/webinars.html

U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy

Clean Energy Finance: Raising Investment Funds & Working with Financial Institutions

Peter B. Meyer, PhD

President & Chief Economist

The E.P. Systems Group, Inc.

December 5th , 2013

Our Purpose today …

Providing a broader picture of possibilities to the Municipalities, Counties and Community Organizations that do not have staff who are specialists in financing.

Most of the potential "Program Sponsors" of local Clean Energy programs do not know about all the potential means of financing that they have.

We want to give you a perspective on how to get the funds you need to engage in the Clean Energy activities you want to pursue.

Overview

- Clean Energy and Types of Capital
- Sources of Financing You Can Tap
- Regulations that Affect Availability of Funds
- How Lenders Protect Themselves from Risks
- Risk Mitigation that You Can Offer
- Program Design and Access to Capital
- Looking for Financing

Clean Energy and Types of Capital

Clean Energy Programs Include …

Renewable Energy (RE) – programs to promote the development and use of power from sources that do not deplete over time.

- photovoltaic (PV) or solar cell panels that convert sunlight into electricity,
- wind turbines that use the power of wind to generate electricity,
- geothermal energy pumps that tap the heat from the earth to heat and cool buildings,
- biofuel technology that burns plant tissue or biomass to produce electricity or converts biomass into liquid fuel for transportation,
- hydropower dams and turbines that turn the power of flowing water into electricity.

Energy Efficiency (EE) – programs to encourage investment in energy savings technologies by households, businesses, non-profit organizations and/or governments themselves.

- weatherization efforts in homes and businesses
  - sealing cracks
  - repairing roofing
  - installing insulation
- whole-building retrofits that involve significant upgrades
  - replacing windows and doors
  - rehabbing or replacing heating and cooling (HVAC) systems
- business operating system improvements
  - redesign of operations to reduce energy consumption
  - installation of new equipment that is more energy efficient

RE and EE initiatives are investments.

They require funding.

The big question, then, is

"Where's the money?"

The next question is

"How can we get it?"

Types of Capital and How to Attract Funding

Money – Capital – Takes one of two forms …

- ***Debt Capital* is money that is lent**. The investment return to the lender is the interest paid. The investment risk to the lender is that the borrower will not be able to repay the principle and interest.

- ***Equity Capital* is money that is invested** in return for a share of the profits resulting from expected success. The investment return comes in the form of profits that flow to the owners. The investment risk is that profits are lower than expected – or that no profit at all is generated.

Sources of Financing you can tap

- Banks
- Savings Institutions
- Credit Unions
- Community Development Finance Institutions (CDFIs)
- Commercial and Consumer Finance Companies
- Specialized Energy Lenders
- Renewable Energy System Developers
- Energy Service Companies
- Electric and Gas Utility Companies
- Government (and Foundation) Grants and Loans
- Tax Increment Financing

Working with Different Sources of Financing (1/2)

Source	Issues Associated with Using the Source
Banks	Large ones may have no interest in small loans. Pressures to show lending in all their markets may lead some to participate in local initiatives. Small banks may have low loan-to-asset ratios and welcome new opportunities to lend.
Savings Institutions	Generally local, required to focus on the residential market. May be interested in commercial Clean Energy investments to complement their high levels of mortgage lending.
Credit Unions	Depending on membership eligibility definitions, may have very different missions and geographic scope. Those with spatial membership definitions may be highly motivated to help the local economy grow and thus to finance Clean Energy.
Community Development Finance Institutions (CDFIs)	Get capital at very low cost to them, so can lend at low rates. Are focused on low income areas and people, so may not be able to serve your entire target area or mix of parties wanting loans but potentially very interested in Clean Energy that pays off economically for their target populations and communities.
Commercial and Consumer Finance Cos.	High cost sources of capital. May be important in the absence of specialized energy finance programs, when promoters of Clean Energy investments need to turn to traditional sources.

Working with Different Sources of Financing (2/2)

Source	Issues Associated with Using the Source
Specialized Energy Lenders	May use the capital from finance companies as well as other sources, but act as loan processors and facilitate access to funds. Offer program administration services to large scale programs.
Renewable Energy System Developers	Hold ownership and invest equity. Need guaranteed markets for the power they generate. Dependent on state energy policies for markets and also RE credits that they can sell.
Energy Service Companies	Require significant minimum scale for individual projects. Prefer nonprofits who can use less expensive tax-free loans since their guarantee is that savings will cover debt service costs.
Government Grants and Loans	Grants involve time delays but can support specific one-time projects well. Loans, when available, can be revolved and/or used as leverage for private lending for multi-year programs.
Electric and Gas Utility Companies	Have interest in maintaining power demands but are regulated and are increasingly under pressure to commit funds to Clean Energy. Some with public or cooperative ownership are committed to efficiency and/or renewable energy and may go beyond utility commission requirements.
Tax Increment Financing	Depends on local tax rates and the potential for raising property values through retrofits, not just local government credit ratings.

Regulations and Availability of Funds

Depository Institution Regulations and Limitations

- Lending Standards intended to control risks taken
  - Federal Reserve System (FRB)
  - Office of the Comptroller of the Currency (OCC)
  - Office of Thrift Supervision (OTS)
  - Deposit Insurance Agencies (FDIC, NCUSIF)
- The Community Reinvestment Act (CRA)
  - *Requires major banks to meet the credit needs of the communities in which they do business*
  - *loans made in low to moderate income (LMI) neighborhoods or to LMI borrowers both can earn CRA credits*
- Individual Institutional Charters
  - Geographic or Political boundaries on activities
  - Populations to be served

Regulations Mandating Utility Company Actions

- Mandated “on-bill payments” for debt servicing
- Demand Side Management (DSM)
  - Demand Response
  - Time of Day or other Variable Pricing
- Efficiency Promotion Programs
  - Low Income Weatherization
  - Energy Efficiency (EE) Programs
- Renewable Energy Programs
  - Renewable Portfolio Standards (RPS)
  - Feed-In Tariffs (FITs)

How Lenders Limit Their Risks

- Unsecured Lending
  - Collection agencies pursue defaults for a share of payments
- Liens on Property
  - Not always on the property involving the Clean Energy project
  - Ideally permit full recovery of losses
- Fixture Filings (also called "UCC-1 Filings")
  - Power to repossess the property purchased with the loan proceeds in the event of default on payments
- Soft Liens ("liens at the meter")
  - Regulatory right to disconnect utility service in the event of non-payment
  - On-bill repayments may or may not include disconnection risks
  - May conflict with restrictions on winter disconnections

Risk Mitigation You Can Offer

The greatest risk mitigation you can offer, for EE at least, is a process that assures the funds are used for the intended purpose, using qualified contractors.

But you want to include poorer credit risks if you can, so you can offer to limit lender risk with …

- Loan Loss Reserve Pools
- Loan Guarantees
- Loan Loss Insurance
- Debt Service Reserves
- Subordinated/Senior Capital Structures

Interest Rate Buydowns are just a subsidy and do not reduce risk or increase capital availability.

Program Design & Access to Capital

- Type of Financing Program
- Investment Ownership
- Borrower or Borrowers
- Scale and Duration
- Impacts on Financiers' Markets
- Dependence on Regulation
- Fees Paid to Financiers
- Program Management Support Needs and Coverage of Financiers' Costs
- Non-Program Benefits for Financiers

Program Design (2/5)

- **Type of Financing Program**
  - Are you seeking Equity investors or Lenders?
  - Are you promoting RE or EE?
  - For whom are you seeking capital?
- **Investment Ownership**
  - Who will own whatever you seek to finance?
  - Who will save or make money from the investment?
    - Homeowners with EE loans default far less often than other home improvement loan borrowers: Only 4.4% of the homeowners with FICO scores around 640 in Pennsylvania's Keystone HELP program defaulted
    - Mortgage default risks are on average 32 percent lower in energy-efficient homes – another risk reduction!

Program Design (3/5)

- **Borrower or Borrowers**
  - Who are they (homeowners or businesses?)
  - What is their credit rating (FICO score)?
  - Are you targeting LMI neighborhoods or people?
- **Scale and Duration**
  - Administrative costs are a burden for small scale loans … and small programs
  - Interest and charges have to cover those costs
  - Longer program duration can help distribute costs across more loans or activities
  - You can increase scale by joining with other local partners to cover more people or businesses

Program Design (4/5)

- **Impacts on Financiers' Markets**
  - These impacts are not under your control
  - But you need to know about them – and sometimes to point them out to possible financiers
  - CRA credits are one form of market impact
  - So are borrowers' memberships in Credit Unions
  - As are fewer mortgage defaults and pre-payments
- **Dependence on Regulation**
  - Tax credits may be the key to some financing
  - State utility regulators' Renewable Portfolio Standard (RPS) requirements assure RE markets
  - Building standards affect the value of EE investments

Program Design (5/5)

- **Fees Paid to Financiers**
  - Will you cover loan application fees for borrowers?
  - Are you willing to cover some financiers' costs to get financing for third parties in your community?
- **Program Management Support**
  - You may need it if you don't have in-house capacity
  - Will you pay lenders to manage the program for you?
  - If so you may get more partners, or lower cost loans
- **Non-Program Benefits for Financiers**
  - Do you channel business to prospective financiers?
  - Can you? (If so, why don't you?)
  - Do you have a *"Purchasing Card"* program? (Use it!)
  - Offer Publicity, if nothing else

Outlining your Desired Clean Energy Program

Program Feature	Description *(describe what you want for this program feature in your ideal Clean Energy program)*	Priority Ranking *(rank each feature)* A	B	C
Type of Financing Program				
Investment Ownership				
Borrower or Borrowers				
Scale and Duration				
Impacts on Financiers' Markets				
Dependence on Regulation				
Fees Paid to Financiers				
Program Management Support for Financiers' Costs				
Non-Program Benefits for Financiers				

Looking for Financing

You're Not Ready to start looking unless you know …

(1) What are the **objectives** of your Clean Energy efforts?

(What's important? Saving money and/or energy, job creation, reducing emissions, appearing to be forward looking, promoting EE, RE or both? Rank order your objectives)

(2) What is the institutional, legal and financial **context** in which you are operating?

(What do you know about the state and federal regulations and incentives? Have you scoured ***DSIRE***? What about non-energy programs you can tap? What's your own borrowing capacity? How strong are your local financial institutions?)

If you can't fill out the description of your Ideal Program – and have a good idea of how attainable it might be …

STOP!!

Go back over what your organization has decided to try to do, what you know about how you might get there, focus your objectives, and firm up your knowledge base

If you *really* are ready to look for financing …

Here are the steps to take:

1. Identify your local financial institutions.
2. Determine each financier's risk appetites and the types of Clean Energy programs that might appeal, asking questions like those provided in the Financing Guide.
3. Prioritize the financiers that you will approach.
4. Cross-check the state regulatory support you may be able to tap to get funds or help "sell" your program.
5. Refine your "ideal" program design to fit state support and appeal to your targeted financiers.
6. Show a program outline to different financiers to get a measure of their interest and get feedback on what would make it more appealing, tailoring the pitch to each one based on their risk appetite.

7. Revise the program in light of the feedback you collect.
8. Formally solicit participation from potential financiers with a standard **Request for Proposals (RFP)** for the ideal program you think is attainable given what you've heard from financiers.

Make sure to provide language in the very first RFP that allows possible funders to suggest alternative financing terms – or even a different program design.

The RFP process for capital, unlike more routine acquisitions, is really a matter of negotiations, possibly involving multiple providers and terms changing over time, so ***flexibility is essential.***

If you also need to know which program administrative functions the capital source you seek is willing to undertake, you may want to include some elements of a **Request for Qualifications (RFQ)**, asking about their capacity to deliver.

Some questions to ask local financiers …

- What is the lender's current loan-to-deposit ratio? Are they satisfied with that, or are they looking to make more loans?
- How does the lender feel about doing program paperwork? Would it steer customers away from lending programs if the paperwork were too onerous? What is a program in which it participates that has gotten the paperwork burden right?
- What volume of loans would the lender need to do annually to be interested in participating in this type of program?
- What is the institutional process for getting a lending program approved, and what are potential institutional barriers?
- Does the lender have similar programs? What are the rates and terms the lender offers in these programs?

Thank You!!

QUESTIONS??

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