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STATE & LOCAL ENERGY EFFICIENCY ACTION NETWORK

Financing Solutions Working Group Blueprint Executive Summary

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STATE & LOCAL ENERGY EFFICIENCY ACTION NETWORK

The Financing Solutions Working Group of the State and Local Energy Efficiency Action Network is committed to taking action to increase investment in cost-effective energy efficiency. This Blueprint was developed under the guidance of and with input from the working group. The document does not necessarily represent an endorsement by the individuals or organizations of Financing Solutions Working Group members.

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Financing Solutions Working Group

- Goal: The goal of the SEE Action Financing Solutions Working Group is to remove financing barriers to energy efficiency in the United States through improved financing tools and mechanisms (loans, leases, service agreements).
- *Better understand the needs of financial institutions in participating in energy efficiency lending.*
- *Provide government and financial institutions with the data, tools, and education to create successful future financial products.*
- *Continue to refine those financial tools so they reflect current data and the market's changing needs.*



Working Group Members

Name	Title	Company	Affiliation
Co-Chairs			
Tanuj "TJ" Deora	Director	Governor's Energy Office, State of Colorado	State - SEO
Phil Giudice (retired)	Commissioner	Massachusetts Department of Energy Resources	State - SEO
Keith Welks	Pennsylvania Treasurer	Deputy State Treasurer for Fiscal Operations	State - Treasurer
Policymakers, State/Local Government			
Jennifer Finnigan	Analyst, Energy Efficiency Group	California Public Utilities Commission	State - PUC
David Terry	Executive Director	National Association for State Energy Offices	State - SEO
James Gardner	Commissioner	Kentucky Energy Commission	Public Utility Commission
Jeff Pitkin	Treasurer	NYSERDA	State - SEO
Research/Academia			
Joel Kurtzman	Representative	Milken Institute - Center for Financial Innovations	Industry Association
Bryan Garcia	Program Director	Yale Center for Business and the Environment	Academia
Vendors/Industry			
Peter Krajsa	President	AFC First Financial Corporation	Industry
Janis Erickson	Strategic Demand-side Planner	Sacramento Municipal Utility District (SMIUS)	Utility
Mike Couick	CEO	Electric Cooperatives of South Carolina	Utility
Trenton Allen	Municipal finance	Citi	Industry - Financing
Coordination Organizations			
Philip Henderson	Senior Financial Policy Specialist	NRDC - Center for Market Innovation	NGO
Don Gilligan	President	National Association of Energy Service Companies	Industry Association
Stockton Williams	Senior Policy Advisor, Office of Sustainable Communities	US HUD	Federal
Mark Wolfe	Executive Director	Energy Program Consortium	Industry Association
Richard Metcalf	Director of Corporate Affairs	LiUNA	Institutional Investor (Pension Fund)
Margot Brandenburg	Associate Director	Rockefeller Foundation	Institutional Investor (SRI / PRI)



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 - Patrick Shaughnessy, Pennsylvania Department of Treasury
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The Financing Solutions Working Group has taken the following steps:

- Examined full set of possible markets for financing energy efficiency
 - Residential
 - Commercial
 - Government/Institutional
 - Industrial
- Prioritized those markets based on market size, financing gaps, and potential for real impact.
- Based on those priorities, established a plan of action, targeting specific markets.



Our primary focus is on residential with a secondary focus on the commercial sector because:

- The residential sector:
 - Represents a huge market with needs for huge capital improvements yet is one of the least efficient capital markets.
 - Uses well-understood credit evaluation criteria (FICO score, debt/income ratios) that make financing more straightforward than in some other markets.
 - Employs a standard set of energy efficiency measures that rely on well-established technology (HVAC, building shell measures); however, potential untapped market is huge.
- The commercial sector:
 - Also requires huge capital improvements but has traditionally encountered multiple barriers to financing related to borrower creditworthiness and reluctance to take on debt.
 - Generates larger deal sizes as a whole than residential markets, which can be of greater interest to financial markets since large projects are often more capital-efficient than many small residential projects.
 - Represents a very large and virtually untapped market potential for energy efficiency finance.
- Both markets leverage recent DOE efforts (Better Buildings Grants, FHA Power Saver, and other products)



We are keeping our focus primarily on residential markets and secondarily on commercial markets. We may later examine other markets with:

- Low penetration of energy efficiency
- Financing identified as a barrier or potential solution to efficiency
- Large market size and potential
- High cost of capital
- SEE Action Financing Solutions Working Group can make a meaningful contribution

The following slides focus on residential finance background, given the greater initial emphasis of the workgroup on the residential sector.



Priority Solutions and Actions to Achieve the Goal

Mid-term Goal

Remove financing barriers to energy efficiency in the United States through improved financing tools and mechanisms (loans, leases, service agreements).

Three Pillars

Better Understand Needs of Financial Institutions and Customers

Develop Information Toolkits

Develop New Data on Loan Performance

Priority Solutions Areas

1. Dialogue with Financial Institutions and Customers

Gather information from financial institutions and customers to better understand their needs relative to participating in energy efficiency lending.

2a and 2b. Information Toolkits

Provide relevant data and analysis to utilities, government entities, and financial institutions that will fill-in knowledge gaps and information needs and allow them to create appropriate finance products.

2c. Toolkit Outreach and Education

Educate financial institutions, utility commissions, and other stakeholders on how to effectively leverage information and data presented in the toolkit.

3. Loan Data Analysis

- (a) Gather and make public (on an ongoing basis) data, including loan-level performance data, that will assist utilities, financial institutions and others to develop and offer finance products for the residential sector at attractive rates and terms.
- (b) Create online depository of loan program information.



Mapping Working Group Goal to Stakeholders

		Stakeholder				
		State Gov't.	Local Gov't.	Utilities*	Financial Institutions	State Public Utility Commissions
Goal	Remove Financing Barriers to Energy Efficiency through Improved Financing Tools	<ul style="list-style-type: none"> • Coordinate and partner with financial institutions, through credit enhancements, to encourage them to offer effective financing tools. • Where state gov't. operates a utility, consider incorporating that utility into financing product offering through on-bill finance. • Consider use of state bonding authorities to access low cost capital for efficiency investments. 	<ul style="list-style-type: none"> • Coordinate and partner with financial institutions to encourage offering of effective financing tools. • Where local gov't. operates a utility, consider incorporating that utility into financing product offering through on-bill finance. 	<ul style="list-style-type: none"> • Consider methods of encouraging energy efficiency lending through on-bill collection structures. • Consider structures that use ratepayer funds as credit enhancements or direct lending capital. • Consider structures that use utility credit to secure lending, subject to appropriate rate treatment of potential losses. 	<ul style="list-style-type: none"> • Partner with local or state governments or utilities to originate, service, or provide capital for financing products that are appropriate for efficiency investments. • Research and incorporate into underwriting standards loan level performance data from efficiency lending. • Examine methods to reduce transaction costs for loan origination/servicing in residential sector. 	<ul style="list-style-type: none"> • Provide appropriate cost recovery treatment of credit enhancements for financing products. • Consider mechanisms for on-bill financing structures that utilize utility collections, utility ratepayer funds as lending capital, or private, non-utility ratepayer capital

*Including IOUs, munis, co-ops, states, and others



Pillar #1: Better Understand Needs of Financial Institutions and Customers

- Financial institutions are still reluctant to allocate capital to energy efficiency lending.
- Although we understand many of the issues, further clarification is still useful.
- Commercial and residential customers as well as contractors are often reluctant to take on new debt or engage in new efficiency projects that involve financing.

Approach: Gather information from financial institutions and customers to better understand their needs relative to participating in energy efficiency lending.



Solution #1:

Dialogue with Financial Institutions

- SEE Action Financing Solutions Working Group will conduct a series of targeted interviews with financial institutions as well as key finance product users (customers) to understand perspective on the following non-exclusive list:
 - Ideal credit enhancement structures
 - Perspectives on utility, government or other partial guarantee structures
 - On-bill financing structures
 - Means to offer fast origination along with adequate security to provide low interest rates
 - Data requirements
 - Best product delivery mechanisms
 - M&V needs and requirements

Deliverable: A report summarizing the results of the interviews, including value chain analysis for policymakers and the energy and financial communities (originators, investors, others). The research/report will offer information on both residential and commercial markets.



Pillar #2:

Develop Information Toolkits

- Financial institutions typically do not have a clear picture of energy efficiency lending, or a good sense of the technologies and risks.
- This lack of understanding dampens their interest in providing capital to this market.
- State governments and utilities (with state regulator approval) typically do not have a good understanding of how lending institutions operate, how they make lending decisions, and best means to provide capital that private entities can leverage.

Approach: Provide relevant data and analysis to utilities, government entities and financial institutions that will fill in knowledge gaps and information needs and allow them to create appropriate finance products.



Solution #2a:

Develop Finance Institution Toolkit

- SEE Action Financing Solutions Working Group will develop a toolkit for financial institutions that provides information on:
 - Types and cost of energy efficiency installations
 - Typical range of consumer cost savings
 - Typical range of borrower profiles
 - Variations across geography
 - Successful loan products
 - Typical risk profiles
 - Market size projections
 - Utility roles
 - Government requirements
 - Credit enhancement structures
 - Originator/servicer roles
 - Projected cash flows for borrowers given energy cost savings

Deliverable: A toolkit for financial institutions that addresses the above issues.



Solution #2b:

Develop Utility/Gov't Institution Toolkit

- SEE Action Financing Solutions Working Group will develop a toolkit for utilities/gov't institutions that provides analysis and information on:
 - Basic lending and investing practices
 - Successful loan products
 - Means to promote lending without holding or servicing loans
 - Considerations re. lending regulations.
 - On-bill finance structures
 - Credit enhancement structures including the use of utility loan guarantees and loan loss reserves
 - Influence of finance products on contractor close rates

Deliverable: A toolkit for utilities and government institutions that addresses the above issues.



Solution #2c:

Toolkit Outreach and Education

- SEE Action Financing Solutions Working Group will conduct outreach to financial institutions, utility commissions, state officials, and other government officials to describe and promote the results of and information contained in the Toolkit.

Deliverable: Outreach will be conducted through a minimum of the following steps:

- 7-10 webinars provided through relevant state or regional associations (NARUC, NCSL, NGA, NASEO, others)
- 3-4 webinars provided through financial industry-focused organizations including credit unions, independent and national banks, CDFIs
- 3-4 webinars provided to utility associations, focused on NRECA, APPA, and EEI
- 3-4 presentations at national or regional meetings of the above organizations
- Direct outreach, as warranted, through phone calls and other person-to-person contact with relevant major financial institutions, utilities, and state officials



Pillar #3:

Develop New Data on Loan Performance

- More data is required in order to be able to demonstrate the performance of energy efficiency loans
 - Loan volume
 - Typical loan sizes
 - Loan performance by:
 - Loan size
 - Credit score band
 - Debt-to-income
 - Household income; other relevant data
 - Energy savings metrics

Approach: Gather and make public (on an ongoing basis) data, including loan level performance data, that will assist utilities, financial institutions and others to develop and offer finance products for the residential sector at attractive rates and terms.



Solution #3a: Loan Data Analysis

- SEE Action Financing Solutions Working Group will request release of Fannie Mae loan data, analyze that data, and issue a report.

Deliverable:

A report summarizing the major results of the Fannie Mae Energy Loan portfolio and experience. Development of this report is contingent upon release of Fannie Mae loan data.



Solution #3b:

Create Online Repository for Loan Data and Analysis

- SEE Action Financing Solutions Working Group will (a) examine feasibility, costs and ability to create an online repository for ongoing reports about performance of efficiency lending programs including, where available, data on loan level performance. (b) pending determination as to Step (a), develop this on-line repository.

Deliverable:

An online location for data and information on loan program performance.



Targeted Work Plan

Better Understand Needs of Financial Institutions and Customers

Sub-group	Resource to be Developed	Outreach Strategy/Goal	Key Issues to be Addressed	Target Stakeholder Group*					Schedule
				State	Local	Utilities	Financial Institutions	PUCs	
Solution #1: Dialogue with Financial Institutions	<ul style="list-style-type: none"> A report summarizing the results of the interviews including value chain analysis for policymakers and the energy and financial communities. 	<ul style="list-style-type: none"> Conduct a series of targeted interviews with financial institutions to understand their needs relative to participating in energy efficiency lending. 	<ul style="list-style-type: none"> Ideal credit enhancement structures Perspectives on utility, government or other partial guarantee structures On-bill financing structures Means to offer fast origination along with adequate security to provide low interest rates. Data requirements Best product delivery mechanisms M&V needs and requirements 	X	X	X	X	X	<ul style="list-style-type: none"> Project months 0-3: 2 months for interviews and information gathering 1 month for information synthesis and report composition

* Primary targets indicated with large, bold X. Secondary targets indicated with non-bold X.



Targeted Work Plan

Develop Information Toolkits

Sub-group	Resource to be Developed	Outreach Strategy/Goal	Key Issues to be Addressed	Target Stakeholder Group*					Schedule
				State	Local	Utilities	Financial Institutions	PUCs	
Solution #2a: Financial Institutions Toolkit	<ul style="list-style-type: none"> A toolkit for financial institutions that addresses a variety of financial products. 	<ul style="list-style-type: none"> Develop a toolkit for financial institutions that provides information on appropriate finance products. 	<ul style="list-style-type: none"> Types & cost of energy efficiency installations Typical range of consumer cost savings Typical range of borrower profiles and risk profiles Successful loan products that address mkt. barriers Market size projections Utility roles Government requirements Credit enhancement structures 				X		<ul style="list-style-type: none"> Project months 3-12, beginning upon completion of Solution #1 (will run in parallel with Solution #2b)

* Primary targets indicated with large, bold X.
Secondary targets indicated with non-bold X.

Targeted Work Plan

Develop Information Toolkits

Sub-group	Resource to be Developed	Outreach Strategy/Goal	Key Issues to be Addressed	Target Stakeholder Group*					Schedule
				State	Local	Utilities	Financial Institutions	PUCs	
Solution #2b: Utilities and Government Toolkit	<ul style="list-style-type: none"> A toolkit for utilities and government institutions that addresses a variety of financial products. 	<ul style="list-style-type: none"> Develop a toolkit for utility and government institutions that provides information on appropriate finance products. 	<ul style="list-style-type: none"> Basic lending and investing practices Successful loan products Means to promote lending without holding or servicing loans Considerations re. lending regulations On-bill finance and collection structures Credit enhancement structures Influence of finance products on contractor close rates 	X	X			X	<ul style="list-style-type: none"> Project months 3-12, beginning upon completion of Solution #1 (will run in parallel with Solution #2a)

* Primary targets indicated with large, bold X. Secondary targets indicated with non-bold X.

Targeted Work Plan

Develop Information Toolkits

Sub-group	Resource to be Developed	Outreach Strategy/Goal	Key Issues to be Addressed	Target Stakeholder Group*					Schedule
				State	Local	Utilities	Financial Institutions	PUCs	
Solution #2c: Toolkit Outreach and Education	<ul style="list-style-type: none"> Education on how to effectively leverage information and data presented in the toolkit deliverables. 	<ul style="list-style-type: none"> Work with and guide financial institutions, utility commissions, and other stakeholders on how to use the different toolkits to understand various finance products and inform future programs. 	<ul style="list-style-type: none"> 5 Webinars Direct outreach to financial institutions and utility commissions and other stakeholders Presentations at 5 conferences 	X	X	X	X	X	<ul style="list-style-type: none"> Continuous for months 12-24 of project

* Primary targets indicated with large, bold X.
Secondary targets indicated with non-bold X.



Targeted Work Plan

Develop New Data on Loan Performance

Sub-group	Resource to be Developed	Outreach Strategy/Goal	Key Issues to be Addressed	Target Stakeholder Group*					Schedule
				State	Local	Utilities	Financial Institutions	PUCs	
Solution #4: Loan Data Analysis	<ul style="list-style-type: none"> A report summarizing the major results of the Fannie Mae Energy Loan portfolio and experience. An online repository for data on performance of efficiency finance programs. 	<ul style="list-style-type: none"> SEE Action Financing Solutions Working Group will request the release of Fannie Mae loan data, analyze the data, and issue a report. SEE Action Financing Solutions Working Group will create an online location for loan program performance. Review needs and feasibility of developing a centralized repository for energy efficiency finance program portfolio results. 	<p>Additional data to be able to demonstrate performance of energy efficiency loans:</p> <ul style="list-style-type: none"> Loan Volume Typical Loan Size Loan performance by: loan size, credit score band, debt-to-income, household income, and other relevant data 	X	X	X	X	X	<ul style="list-style-type: none"> Feasibility and cost report: 6 months following Solution #1 (Months 3-6 of total project) Pending decision to proceed, create and operate online repository of information: Months 6-24 of project.

* Primary targets indicated with large, bold X.
 Secondary targets indicated with non-bold X.