Energy Efficiency Market Dynamics

Explosive growth and dollars to deploy

300% growth in commercial retrofit market expected over next 10 years

6x leverage on Stimulus Block Grants from Loan Loss Reserves

$500 billion market projected by 2030 for residential alone
Financing Options
• On July 6, 2010, the FHFA effectively eliminated the market for property assessed clean energy (PACE) financing programs that utilize a senior priority tax lien to secure loans on residential properties.

• In addressing PACE programs with first liens, Fannie Mae and Freddie Mac should undertake actions that protect their safe and sound operations. These include, but are not limited to:
  • Adjusting loan-to-value ratios to reflect the maximum permissible PACE loan amount available to borrowers in PACE jurisdictions;
  • Ensuring that loan covenants require approval/consent for any PACE loan;
  • Tightening borrower debt-to-income ratios to account for additional obligations associated with possible future PACE loans.

• FHFA’s actions, however, may not affect commercial property programs.
Alternative Financing Options

Private sector loans with public capital:
• third party lender originates and services loans, often with government capital
• example: Keystone Home Energy Loan Program (HELP) in Pennsylvania

On-bill utility loans:
• utilities pay for energy efficiency retrofits
• contractors install efficiency measures
• costs recovered through an itemized charge on participants’ utility bills
• examples: United Illuminating Company (CT); Sempra Energy Utilities (CA)

On-bill utility tariffs:
• on-bill energy service charge on a consumer’s bill
• stays with the property in the event the property owner moves
• example: Midwest Energy (KS)

Revolving Loan Fund:
• federal or state subsidized low interest rate
• typically run by State Energy Offices
• may leverage public funds with private capital through a “blend and extend” structure
• often unsecured or secured by a contractual junior lien
## Factors Influencing Interest Rate

<table>
<thead>
<tr>
<th>Senior Lien</th>
<th>Junior Lien</th>
<th>Springing Lien</th>
<th>UCC1 Lien</th>
<th>Unsecured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Property Attached</td>
<td>Borrower Attached</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Multiple Credit Enhancements</td>
<td>No Credit Enhancements</td>
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</table>
Funding Strategies

Sources of funds
- Local banks
- Regional banks
- Credit unions
- Community Development Financing Institutions
- Other private capital

Maintain reasonable interest rates
- Corporate sponsors
- Grants – EECBG (stimulus funds) and private foundations
- Other Federal and State programs – e.g., Qualified Energy Conservation Bonds
Benefits
# Stakeholder Benefits

<table>
<thead>
<tr>
<th>Local Governments</th>
<th>Property Owners</th>
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</thead>
<tbody>
<tr>
<td>• Economic development through local capital investment</td>
<td>• No upfront payment</td>
</tr>
<tr>
<td>• Significant job creation</td>
<td>• Saves money on utility bills</td>
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<tr>
<td>• Reduction in pollution</td>
<td>• Loan-to-cash flow positive</td>
</tr>
<tr>
<td>• Ability to include lower income demographic</td>
<td>• Low interest rate</td>
</tr>
<tr>
<td>• Potential contribution to future RPS</td>
<td>• Payment transfers to new property owner (meter attached/PACE)</td>
</tr>
<tr>
<td>• Increased tax revenues</td>
<td>• Possible tax benefits</td>
</tr>
<tr>
<td></td>
<td>• More resource-efficient and valuable property</td>
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</table>
Options for Minnesota Cities
To achieve the desired goals, the loans from these programs must be attractive to the capital markets.

- Reduced interest rates and benefits to the consumers
- Scalability and sustainability of the Program

**Key Elements:**

- Stringent credit standards with full consumer protection and loan covenants
- Defined energy performance standards
- Robust measurement and verification protocols
- “Gold plated” loan servicing
Immediate Financing Options

City Level - Launch of Financing Program:
• Qualified Energy Conservation Bonds and similar structures can provide initial capital
• Any available public or private funds available to support the Program can reduce interest rates by funding loan loss reserves
• Local lenders provide growth capital (e.g., MichiganSAVES)

State Support:
• Bond issuance at State level for further interest rate reduction
• Other options to be explored
Launching a Program this Fall
Each program should have the key elements required by capital markets but can be significantly customized to meet the needs of each local government.

**Customized aspects of the program could include:**

- Residential vs. commercial or other sectors
- Eligible improvements/projects (balance between renewables and energy efficiency)
- Local job creation
- Target interest rates
- Demographic availability
- Environmental benefits
- Workforce development
- Scalability and sustainability
Goals Assessment
• Residential vs. commercial or other sectors

Structure Determination – Legal
• Unsecured, on-bill, property attached, etc.

Structure Determination – Financial
• Interest rates
• Repayment mechanisms
• Leveraged capital

Structure Determination – Technical and Administrative
• Eligible projects
• Vendor standards
• Measurement and verification protocols
Financing Services

Attract local lenders

- Local and regional banks, credit unions, others

Manage Loan Loss Reserve Account

- Reduces interest rate to consumers

Train lenders

- Provide protocols for credit, energy performance, M&V and servicing to match national standards for secondary markets

Provide liquidity to grow the Program

- Provide liquidity to the Program by purchasing loans from local lenders based on qualified criteria
- Allows capital to recycle through the Program and into the community
Conclusion
Summary

Total market estimate for energy financing over $500 billion by 2030.

Demand for these programs is growing rapidly as energy efficiency is a primary call to action for governments, home owners and businesses.

Minnesota cities could benefit from immediate and long-lasting job, energy independence and environmental benefits and provide leadership model for the State.

Third party administrators are needed to provide scalable loan origination infrastructure:

- Design
- Administration
- Financing and loan underwriting with emphasis on standardization

Abundant Power Solutions brings unique advantages:

- Financial expertise – a proven, experienced management team
- Engineering & Data Management – to ensure cash flow positive loans
- Measurement & Verification – leads to sustainability and lower cost of capital
- Flexibility – can support a range of program and financial structures
- Early mover – awarded first two programs in the Southeast
Abundant Power’s Experience

Abundant Power is currently designing, administering and financing the following programs:

- **City of Charleston, South Carolina.** Abundant Power is providing a full set of design, marketing, administration and finance services for an “on-bill” energy efficiency financing program, which will be one of the first such programs in the Southeast.

- **State of Alabama, Alabama Department of Economic and Community Affairs.** Abundant Power is designing and managing a statewide clean energy revolving loan fund in Alabama for commercial and industrial properties. The fund will be initially capitalized with $25 million through the federally supported State Energy Program. We will be structuring the program to bring in over $100 million of additional private capital.

Abundant Power is also providing financial advisory to numerous city, county and utility programs.
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