Financing Process

- Unsecured personal loans for prequalified energy measures or improvements recommended by a Contractor and the loan program administrator.

- Ideally: business, nonprofits multifamily and public sector properties would be eligible too.

- Financing options available through a partner commercial lender or lenders

- Pre-approved contractors for all eligible upgrades

- “Non-traditional” longer loan terms more closely tied to the specific upgrade and its expected useful life

- “Credit Enhancement”
Financing Process

- Most major home upgrades are made on an “emergency” basis
- Contractors have access to financing but most is high interest, short term, low tech, and borderline predatory.
- Often emergency financing is completed for small amounts in the $5-15k range
- Climate conscious individuals at all income levels are still committing to fossil fuel infrastructure
Sample Improvements

Residential
- Rooftop Solar
- HVAC/Heat Pump Upgrades
- Home Electrical Panel Upgrades
- EV Charging
- Hot Water Heating

Commercial
- Rooftop Solar
- HVAC upgrades or heat pump conversion
- Level 2 EV Charging
- Energy Efficiency
- Battery Storage
- Hot Water
How it Could Work

1. Find your pre-approved contractor through the Loan Fund and receive estimates on qualifying improvements

2. Apply for financing

3. Work with lender and kickoff work
Portfolio Approach to lending PLUS
Leverage

- An LLR structure works best when the target market is a portfolio with a large number of small transactions. Typical residential energy efficiency loans, for example, are in the range of $5k to $15k, and a typical program will aim to fund hundreds, and possibly thousands, of loans. Thus, default of a single loan or several loans will represent a small portion of the total portfolio.

- Typical leverage ratio is 20:1. Meaning with $1 million available in funds from the County for the LLR, a 5% loss reserve could produce $20 million in capital to lend.
Loan Loss Reserve or other Credit Enhancement Example

**SAMPLE CALCULATION**

The table below presents a sample calculation for an LLR program budget and risk-sharing formula.

<table>
<thead>
<tr>
<th>Loan Loss Reserve Fund Program, Sample Budget and Risk-Sharing Formula Calculations</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. LLR grant budget</td>
<td>$1 million</td>
</tr>
<tr>
<td>2. Grant funds for program development and operations</td>
<td>$100,000</td>
</tr>
<tr>
<td>3. Net funds for LLR escrow account</td>
<td>$900,000</td>
</tr>
<tr>
<td>4. &quot;First losses&quot; as % of total original principal</td>
<td>5%</td>
</tr>
<tr>
<td>5. Share of first losses borne by LLR</td>
<td>90%</td>
</tr>
<tr>
<td>6. Share of first losses borne by financial institution partner</td>
<td>10%</td>
</tr>
<tr>
<td>7. Total lending that can be supported with this LLR risk-sharing formula</td>
<td>$20 million</td>
</tr>
<tr>
<td>8. Average portion of energy efficiency projects paid by loans (homeowners/utilities/others cover the remaining 20%)</td>
<td>80%</td>
</tr>
<tr>
<td>9. Total energy efficiency project investment that can be supported</td>
<td>$25 million</td>
</tr>
<tr>
<td>10. Leverage ratio #1 (LLR funds to total lending product size supported)</td>
<td>22.22</td>
</tr>
<tr>
<td>11. Leverage ratio #2 (LLR funds to total energy efficiency project investment supported)</td>
<td>27.78</td>
</tr>
</tbody>
</table>
What is a Loan Loss Reserve?

- A structure like a loan loss reserves or loan guarantees, help de-risk investments for private investors, enabling more capital to flow to clean energy projects. If a private investor is hesitant to enter a new market, or is only willing to offer unfeasibly high interest rates, a credit enhancement can provide security to a lender and improve deal economics for the borrower.

- And because these tools are only used to support mature, low-risk technologies, the credit enhancements allow investors to become familiar with viable markets while minimizing public sector expenditure.
Questions

- How large of a program is necessary and what is necessary to leverage capital, and reduce interest rates with minimum County investment?

- Possible Program administrator?

- Credit Score, Min-Max

- Level of County involvement
Virtual Power Plants and Demand, Response Enabled Appliances, and the Loan Programs Office

**Grid Integrated Building: Load Profiles**

- **Typical Commercial Building**
  - Energy Demand: noon
  - Efficiency improves curve (lowers and flattens)
  - *Reduces energy consumption and demand charges*

- **Energy Efficient Building**
  - Energy Demand: noon
  - Adding solar offsets significant loads, often coincident with utility peak loads
  - *Reduces energy consumption and demand charges*
  - **BUT...can cause steep ramping of loads and utility issues**

- **Energy Efficient Building with Solar PV**
  - Energy Demand: noon
  - Grid integration combined with other strategies shifts building loads to match generation, further reducing peaks
  - *Optimizes energy consumption and demand charge savings while supporting grid stability and resilience*
  - Demand response capability during grid peak scenarios provides additional revenue
Potential Corporate Partners

Wells Fargo
Bank of America
BLOC POWER
Duke Energy
Lowe's
Coalition for Green Capital