



RESIDENTIAL ENERGY EFFICIENCY FINANCING: KEY ELEMENTS OF PROGRAM DESIGN

Residential Energy Efficiency Solutions
Arlington, VA

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2

Areas of Expertise

- Policy Development
- Program Design
- Building Codes
- Evaluation
- Cost-Effectiveness

Range of Clients

- Government Agencies
- Advocates
- Regulators
- Utilities

Clients in 15 states/provinces plus regional, national and international organizations.

Key Programmatic Elements of Financing Initiatives



3

- Project for the Connecticut Fund for the Environment and Environment Northeast
- Beyond rates and terms, what are the programmatic elements that impact success?
- Compared Six Residential Financing Initiatives across the country
 - Clean Energy Works Oregon
 - NYSERDA Home Performance with ENERGY STAR
 - Keystone HELP
 - Energize Delaware
 - SoCal Gas
 - Center for Energy and Environment (MN)
- 10 Key Takeaways

Context: Low Participation Rates Across the Board



4

- ACEEE: *“Participation rates are generally low across programs. The percentage of total customers in the classes served by programs compared to the total number of program participants reveals that only two of the programs surveyed had rates that exceeded 3% of the customers targeted by the programs and more than half of the programs had participation rates below 0.5%.”* (Even the 3% is misleading: cumulative, not annual. Also, many are single-measure loans.)
- RAP (Neme): *“Studies suggest the least-cost path to meeting climate goals requires averaging a least 5% annual market penetration of whole-house residential retrofits, yet no jurisdiction is currently reaching even 2% per year.”*

Key Programmatic Elements of Financing Initiatives



5

1. Goals and Objectives

- ❑ E.g., whole-house retrofits (NYSERDA) vs. single-measure replacements (Keystone HELP)

2. Streamlined Program Administration

- ❑ E.g., single program administrator (Keystone HELP) vs. multi-layer approvals, delays, and program suspension (Delaware)

3. Long-Term Funding Strategy

- ❑ As important as seed funding.
- ❑ Examples: relying on returns can mean higher rates, fewer low-income participants (Keystone), while use of ratepayer funds can mean more regulatory restrictions (NYSERDA).

Key Programmatic Elements of Financing Initiatives



6

4. Rebates and Incentives

- ▣ May be integrated most smoothly by hands-on utilities/program administrators
 - ▣ NYSERDA: “assisted” track; high-performance measure incentives; optimization tool with NYSERDA/LIPA incentives

5. Marketing, Education, and Outreach

- ▣ Strategies may impact who takes advantage of the program and related financing products
 - ▣ Community-based outreach (NYSERDA; Minnesota)
 - ▣ Contractor rolodex (Keystone; SoCal Gas)
- ▣ Community-based strategies require budgetary commitment.

Key Programmatic Elements of Financing Initiatives



7

6. Application Process and Timing

- Streamlining is important to reduce confusion (e.g., Minnesota website: enter your address first).
- Timing:
 - Whole-house programs usually start with audit and recommendations first, then application (CEWO; NYSERDA).
 - Single-measure programs often allow contractors to bring loan applications to service calls; tends to be “reactive.”

7. Contractor Support

- “Part of the sales team” in contractor models (e.g., Keystone), but also need support and training in other programs. Requires adequate funding.

Key Programmatic Elements of Financing Initiatives



8

8. Technical Assistance

- ❑ “Energy advisor/coach” model very expensive (e.g., CEWO; Bedford, NY).
- ❑ Instead, can provide support to contractors to answer questions (e.g., NYSERDA/CSG), but still requires some financial support.

9. Quality Assurance

- ❑ Most programs used spot inspections (e.g., NYSERDA does 15%).
- ❑ Can use additional low-cost methods to reinforce QA (e.g., SoCal code of conduct/blanket purchase agreement.)

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9

10. Evaluation, Measurement, and Verification

- Data collection surprisingly rare, but can be important for a number of reasons (e.g., convincing residents that savings projections are real; measuring true impact).
- Can be expensive, but there may be ways to reduce costs (e.g., representative sample; spacing evaluations out over several years).

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