Program Sustainability Peer Exchange Call: 
Transitioning to a Utility Funded Program 
Environment: What Do I Need To Know? 

Call Slides and Discussion Summary 

January 17, 2013
Agenda

• Welcome and Polls

• Transitioning to a Utility Funded Program
  Environment: Arizona Public Service HPwES Program
    ▪ Gavin Hastings, Arizona Public Service

• Q&A and Discussion
  ▪ What lessons have programs learned about working effectively with utilities and transitioning to new roles and responsibilities?
  ▪ What are key remaining challenges for collaboration between programs and utilities?
Participating Programs

- Boulder County, CO
- Cincinnati, OH
- Connecticut
- Fayette County, PA
- Las Vegas, NV
- University Park, Maryland
- Maryland
- Michigan
- Missouri
- Nebraska
- New Hampshire
- Nevada
- Oregon
- Seattle, Washington
Poll:

Which of the following best describes how you expect to work with utilities in the future?

- Collaboration with utility program (e.g., marketing, etc): 50%
- Providing program services for a utility: 38%
- Not planning to work with a utility: 6%
- Other: 6%
- Merger of BBNP program with utility: 0%
Utility Funded Programming: What Do You Need to Know?

Gavin Hastings
Account Executive, Arizona Public Service

Better Building Neighborhood Program
Peer Exchange Call: Jan. 2013
Roadmap Please!

Diagram showing various programs and organizations related to energy efficiency, including DOE Home Energy Scores, National ENERGY STAR Program, APS HPwES Program, FSL, AZ EO, Trade Associations (ACCA, NATE, HPC, ELAZ, BPI), Auditing contractors (early adopters), Positive & Negative Homeowner attitudes, Green thinking (recent phenomenon), Other utility programs, BS Training, Economic conditions, Manufacturers/distributors, Realtors/appraisers, and Key symbols for high, medium, and low levels of influence.
Overview

• Critical Areas of Focus
  – Funding (Regulatory/Rates/Process)
  – Data, Data, Data
  – Collaborative Relationships
    • AZ Case Study

• Questions and Discussion
Utility Funding 101

• How does a utility fund energy efficiency?

• Does your program meet local utility cost effectiveness tests?

• What is the timing and steps to get funding approved?
Utility Funding Needs

- **Program Cost Recovery:**
  - System benefits charge
  - Rate-basing

- **Lost Revenue Recovery:**
  - Performance Incentives
  - Lost Fixed Cost Recovery
  - Decoupling

- Usually determined during rate case settlement
Cost Effectiveness Tests

- Test Vary by Jurisdiction (both in type and Implementation)
  - TRC, SCT, PACT, PCT, RIM
  - Measure vs. Portfolio

- You must procure technical experts with local knowledge
  - Person: former commission staff or utility employee
  - Local/Regional Advocacy Groups or interveners
  - Measure and Evaluation Contractors (Ex. Cadmus, Navigant, or whoever your utility uses)
Cost Effectiveness 101: TRC/SCT

TRC = \[
\frac{\text{Benefits (Avoided Cost} \times \text{Measure Life)}}{\text{Costs (Program Admin + Customer Incremental Cost)}}
\]

* Cost Avoided by the utility by not needing to generate or distribute a unit of energy.
Cost Effectiveness 202: TRC/SCT

Demand, Capacity, Discount Rate, Externalities (CO2, SOx, Water, etc), Measure Life, Fuel Escalation Rate, Net to Gross Ratio, NEBs, Etc.

\[
\text{TRC} = \frac{\text{Benefits (Avoided Cost} \times \text{Measure Life)}}{\text{Costs (Program Admin + Customer Incremental Cost)}}
\]

Customer Incremental, Program Admin (measure, program, portfolio), M&V, performance incentives
Cost Effectiveness Places to Start

- Read:
  

- Ask your utility or local PUC

- Reach out to major local and regional EE advocacy groups and interveners

- **Procure a measure and evaluation contractor**
Regulatory Cycle Time/Process

- Implementation Plans filed annually or every two years (usually at the same time every year)
- Approach Utility, 6 months prior to filing
- Design and Calcs, 3 months prior to filing
- Once filed, Regulatory approval, 3-9 months.
- Implementation, 1-3 months
- Total Time: usually 1 to 3 Years
Data, Data, Data

• Legal:
  – Customer Ownership
  – Confidentiality
  – Data Security
  – Release forms

• Structural:
  – Data Collection Standards
  – Data Collection System
Data Action Items

- Collaboration
  - Use-case development
  - Acquisition strategies
- Large Scale Adoption of Data Standards
  - HPXML
  - BPI Data Collection Standard
  - DOE Data Taxonomy
- Paperless legal releases
- Explore Green Button More
- Build better software architecture
Sustainability through Collaboration

- Market Consistency
  - Contractor Requirements
  - Program and Incentive Design
  - Customer education
- Cost Share and improved cost effectiveness
  - Infrastructure Development
  - Training and Contractor Recruitment
  - Marketing
  - R and D
- Must transcend local markets!
Arizona Example

• Funders
  – Utilities: APS, SRP, SWG, Unisource
  – State Energy Office
  – Grantees
• Local Non-Profit (Foundation for Senior Living)
  – Training (Super-Lab)
  – Contractor Management and QA
  – Must transcend local markets!
• Southwest Home Performance Collaborative
## Arizona Results

<table>
<thead>
<tr>
<th>MARKET EFFECTS</th>
<th>2012 RESULTS*</th>
<th>TOTAL PROGRAM 2012 YEAR</th>
<th>AZ Home Performance Program to Date (2010-2012)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>APS</td>
<td>SRP</td>
<td></td>
</tr>
<tr>
<td>Audits</td>
<td>4,992</td>
<td>3,157</td>
<td>8,149</td>
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<tr>
<td>Completed Jobs</td>
<td>1,762</td>
<td>1,039</td>
<td>2,801</td>
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<td>Conversion Rates (Avg)</td>
<td>35.30%</td>
<td>32.91%</td>
<td>34.10%</td>
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<td>kWh Savings Annual</td>
<td>6,652,915</td>
<td>3,947,228</td>
<td>10,600,143</td>
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<tr>
<td>kWh Savings Lifetime</td>
<td>111,211,100</td>
<td>39,001,880</td>
<td>150,212,980</td>
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<tr>
<td>Pounds of GHG Reduced Annual</td>
<td>5,981,727</td>
<td>5,802,425</td>
<td>11,784,152</td>
</tr>
</tbody>
</table>

* actual data is for January - October 2012, provided by APS and SRP
Discussion
Discussion

• What lessons have programs learned about working effectively with utilities and transitioning to new roles and responsibilities?
• What are key remaining challenges for collaboration between programs and utilities?
What lessons have programs learned about working effectively with utilities?

- Utilities can be one of the most substantial funding resources available in the marketplace
  - Better understanding of how utility funding works can support those trying to establish relationships with utilities or further enhance how programs deliver services and/or interact with utility partners

- Need to understand the point of view of the utility, which is primarily focused on balancing load, revenues, conservation, and protection of rate payers
  - Unless a utility can build program costs into its rate design, it is difficult for it to get involved in demand side management, rebates, etc.
  - In addition to program cost recovery, utilities need a mechanism to recover lost revenues (e.g. avoided operations costs that do not necessarily yield a benefit)

- Begin talking to utilities well in advance - regulatory processes are long and utilities do not change rates quickly
What lessons have programs learned about working effectively with utilities?

- Key components of sustainable collaboration
  - Market consistency: Utilities work internally and with other utilities to ensure their programs are consistent (e.g., similar contractor requirements, program requirements, customer education, customer experience, etc.)
  - Leverage other partners; sharing costs of training, marketing, R&D, etc. can improve overall program cost effectiveness
  - Ultimately energy efficiency efforts must transcend local markets and involve collaboration regionally and nationally

- Arizona example:
  - Aligned technical standards and program delivery, and leveraged partners
  - Allowed for low operating costs, maintained cost effectiveness, and produced significant program outcomes

- Roles for Programs
  - Develop partnerships that help utilities deliver to underserved communities and retain cost effectiveness (e.g., leverage weatherization networks)
  - Facilitate program development (especially valuable for smaller utilities)
What are key remaining challenges for collaboration between programs and utilities?

• The Total Resource Cost (TRC) test is one of the most common cost effectiveness tests
  ▪ TRC is used by about 70% of jurisdictions across the country
  ▪ Total customer cost is the incremental additional cost of the labor and materials for a particular measure over the base case of BAU or doing nothing
  ▪ Rebates are treated as a pass-through in the test and not included in the benefits calculation
  ▪ Important note: avoided costs are calculated for the utility, not the customer.

• Tests need to be done at the local level
  ▪ Demand, capacity, discount rate, etc. vary widely by jurisdictions
  ▪ Accurate information is important for demonstrating a program’s cost effectiveness

• BBNP has developed a cost-effectiveness spreadsheet to assist programs
  ▪ Currently piloting the tool with three programs; results to be reported soon

• Whole house programs involve lots of costs and can be difficult to screen for cost-effectiveness
  ▪ Start with interim steps to build utility comfort (e.g. rebates for duct sealing or insulation)
What are key remaining challenges for collaboration between programs and utilities?

- Availability and use of data is a key challenge industry-wide
  - Utility usage data is owned by the customer and confidential; programs need release forms to procure data
  - Data security concerns: If a utility data set is compromised, the utility has to notify all its customers, which is a significant cost risk

- Need to manage process to mitigate risk for utility and give market the ability to use data in meaningful way
  - Paperless legal releases can streamline the ability to get customer permission (e.g., work with local utility to use docu-sign)
  - White House Green Button initiative to standardize customer data files has potential, but need to build software and control costs

- Collaboration is important to align on regional and national basis how programs and utilities use data
  - Large-scale adoption of data standards is coming (HPXML)
  - The Northeast Energy Efficiency Partnerships (NEEP) has launched its regional data standards/database for energy efficiency programs
What are key remaining challenges for collaboration between programs and utilities?

- Attribution – who gets credit for impacts?
  - In Arizona, utility established the relationship and contributed the majority of the funding, so took credit for the majority of the impact

- Different approach to energy efficiency investments
  - Eventually, people will not pay for not using energy
  - Focus on the greatest system and rate impacts - find ways to work with the utility to allocate energy efficiency investments to meet more complex utility needs and “hot spots” (areas in a utility service territory that are more exposed from resource distribution perspective than others)
Future Program Sustainability Call Topics

Program Sustainability calls will be on Thursdays from 12:30-2:00 PM on the dates below

- Program Sustainability Mastermind Session (February 14)
- Administering Non-profit Energy Efficiency Programs (March 14)
- Unique Fee-For-Service Revenues (April 11)
- Lender-based Revenues and Cost Savings (date TBD)

Please chat in other suggested call topics, or email them to peerexchange@rossstrategic.com