Program Evaluation Plans

The purpose of program evaluations are to measure and help insure cost effective program performance, customer service and inform future program revisions. Program evaluations provide information for Rocky Mountain Power management, regulators, program delivery staff and third party delivery vendors. Rocky Mountain Power regularly evaluates demand side management programs in each state and uses specialized third party evaluator contractors competitively selected to evaluate specific programs for specific periods.

Rocky Mountain Power's evaluators will employ a mix of qualitative and quantitative tools to fulfill the purpose of program evaluations including cost effectiveness assessments, impact and process evaluations. Rocky Mountain Power and their evaluation contractors recognize the customer impacts of evaluations and try to minimize unnecessary contacts while still acquiring the necessary information. Goals and tasks common to all program evaluations are presented below. Unique elements to be considered for each program are then presented. A report outline and evaluation timeline is also included.

Goals of the cost effectiveness assessment:

1. Provide an assessment of program performance without the time or expense of a full impact evaluation. Each installed measure will be assumed to have achieved the deemed savings developed during the planning stage or as calculated and reported during program delivery. A cost effectiveness only assessment is typically used during ramp up periods and/or between comprehensive impact evaluations.
2. Calculate actual program performance for the period using actual expenditures, measure mix, participation counts and the standard cost effectiveness models.

Goals of the impact evaluation:

1. Estimate gross energy (kWh) and demand (kW) savings.
2. Estimate net energy (kWh) and demand side (kW) savings.
3. Calculate program cost effectiveness with net savings.

Goals of the process evaluation:

1. Identify if key program elements such as incentive levels, incentive delivery, service incentives and information components are performing as designed.
2. Identify issues or opportunities regarding program delivery and administration.
3. Recommend any needed changes.

Tasks to perform the cost effectiveness assessment

1. Extract and verify energy and capacity savings, project costs, measure types, etc. data from company or third party administrator data base.
2. Extract and verify utility program costs by category from data bases.

3. Compare energy and capacity savings estimates with those developed during planning process, as applicable, i.e., deemed unit savings.
4. Calculate program performance for the period using actual costs, actual savings, and net to gross assumption used during the planning process employing standard cost effectiveness models.

Tasks to perform the impact evaluation:

1. Extract energy and capacity savings, project costs, measure types, etc. data from company or third party administrator data base.
2. Verify energy and capacity savings, project costs, measure types, etc. data from company or third party administrator data base.
    a. Review the quality assurance process to verify each of these steps has been fully implemented.
    b. In addition, the evaluator will independently review a sample of the quality assurance and inspection reports.
    c. Based on this review the evaluator will assess the level of additional verification (including on-site measurement and verification) required.
3. Extract and verify utility program costs by category from data bases.
4. Select a statistically valid sample of participants and validate reported gross energy savings through appropriate engineering.
    a. Engineering or statistical methods include:
        i. Unit Energy Consumption (UEC) data bases
        ii. Simulation modeling
        iii. Engineering calculations
        iv. Billing analysis (including Princeton Scorekeeping Method) [1]
5. Perform on-site inspections and short term equipment monitoring on statistically selected sample to determine:
        i. Validity of quality assurance process
        ii. Original assumptions used in analysis were reasonable
        iii. Analysis methods are appropriate
        iv. Measures were installed as planned
        v. Measures operated as planned
6. Employ a combination of customer and contractor surveys, equipment sales data and other resources unique to the programs to quantify the activity that would have occurred absent the program. This activity is known as free-ridership. Quantify activity among non-participants that was influenced by the program. This activity is known as spillover.

[1] Princeton Scorekeeping Method[1] (PRISM), an established weather-normalizing tool, especially well suited to residential customers since it can calculate each individual customer's annual energy consumption under average weather conditions. Utilizing historical weather data and billing records, PRISM adjusts for the impact of weather variations upon usage during both the pre and post periods. The result is weather-normalized and annualized data that allow for the meaningful interpretation of the true impact of the Program upon energy consumption. The evaluator will use difference-of-means tests to analyze disparities between the participants and non-participant billing data.

a. Estimate existing and improved equipment and equipment operation practices and resulting efficiency levels.
b. Estimate equipment and equipment operation practices and resulting efficiency levels in the absence of this program.

7. Calculate net to gross ratios including free-ridership and spillover by measure, customer and/or facility type.
8. Calculate program performance for the period using actual costs, actual savings, and updated net to gross assumptions employing standard cost effectiveness models.

Tasks to perform the process evaluation

1. Coordinate with impact evaluation efforts if required
2. Determine survey plan, for interviews with participants, non-participants, utility staff, other key market actors specific to the program.
3. Customer survey design and implementation. Complete telephone or on-site surveys with program participants (customers). The aim of the survey will be to determine:
   a. How each participant learned about the program
   b. Their assessment of the value of the program services
   c. Their estimate of the impact of the Program equipment or services on their energy consumption (in coordination with impact evaluation if required)
   d. Satisfaction with the program administration
   e. Satisfaction with their participation in the Program
   f. Whether they implemented any additional energy efficiency measures as results of the program (in coordination with impact evaluation if required)
4. Customer survey design and implementation. Complete telephone or on-site surveys with program non- participants (customers). The aim of the survey will be to determine:
   a. If the non-participant knew about the program
   b. If they partially participated (began, but did not complete the participation process)
   c. Any assessment of the value of the program services, especially incentive availability or levels.
   d. Satisfaction with the program administration
   e. If they implemented any energy efficiency measures that might have qualified for the program.
   f. Reasons for not participating
5. Retailer and/or contractor survey design and implementation. After reviewing participant complete telephone surveys with selected non-customer participants such as retailers and/or contractors. The aim of the survey will be to determine:
   a. How each participant learned about the program
   b. Their assessment of the value of the program services to their business.
   c. Impact of the program incentives on their sales volume of high efficiency equipment or services.
   d. Understanding of program requirements

e. Satisfaction with the program administrator information, training and incentive application processing.
f. Overall satisfaction with their participation in the program and/or recommendations for program enhancements.
g. Reasons for not participating, especially those retailers and contractors that had previously been participants.

6. Program administration and utility staff survey design and implementation. The evaluator will interview program administration and utility staff regarding. The aim of the survey will be to determine effectiveness of:
   a. Marketing
   b. Customer application process(es)
   c. Customer eligibility criteria, verification process and quality assurance
   d. Vendor relations
   e. Program data collection
   f. Utility, implementer and other program coordination

Evaluation elements unique to the Cool Cash Program

Process Evaluation

The process evaluation will include interviews with dealers, program administration staff, utility staff and participants.

Survey Dealers

The evaluator will interview HVAC dealers and distributors. The interviews will cover:

- Participation Agreement and application process
- Incentive fund allocation process
- Eligibility criteria and the verification process
- Program training sessions
- Program satisfaction
- Impact of program on HVAC installation practices
- Suggested changes or improvements

Survey Program Administration and Utility Staff

The evaluator will interview program administration and utility staff regarding:

- Application process
- Eligibility criteria and the verification process
- Marketing
- Builder relations
- Program data collection
- Utility and implementer coordination

Participant and Non-participant Survey Design and Implementation
The evaluator will complete telephone surveys with Program participants and non-participants. The aim of the survey will be to determine how each participant learned about the Program, their assessment of the value of the Cool Cash program, impact of the Cool Cash incentive/s on their purchasing decision, satisfaction with their purchase and whether they implemented any additional energy efficiency measures. In addition, the evaluator will collect information about Program participants' characteristics (demographics and home characteristics).

Develop Findings and Recommendations
The evaluator will analyze the collected data and opinions to assess Program strengths, weaknesses, bottlenecks, areas of improvement, and best practices.

Impact Evaluation

The impact evaluation will include collecting key data, selecting a random sample of participants, estimating energy savings, and assessing cost effectiveness. The impact evaluation approach will vary by type of measure installed.

Measure verification
PacifiCorp has a quality assurance process in place for this program consisting of:

- Site inspection of a minimum 5% of equipment installations by program administrator
- Required NATE certification for equipment installed by participating dealers

PacifiCorp intends to take remedial action as required based on the quality assurance results.

Establishment of Baseline Efficiency Levels
Determination of what would have happened in the absence of the effort is key in assessing the effects of an efficiency program. Through review of available secondary research and collection of primary data, the evaluator will characterize the baseline efficiency levels and the expected saturation of the Cool Cash program.

Estimating Savings and Assessing Cost-effectiveness
Estimated results will be revealed through:

- Analysis of participants billing history
- Analysis of air conditioning metered data

Evaluation Reports

Program evaluations will be available in report format and provide a complete description of the relevant evaluation objectives and how they were achieved. The final report will contain the following elements:

- Executive Summary
- Description of the program, its goals, and objectives
- Statement of the evaluation goals and objectives
- Discussion of methodologies
- Implementation procedures and assumptions for each method
- Data-collection procedures and methods
- Sample design and selection.
- Results and their interpretation
- Conclusions including recommendations for changes
- Appendices with supporting data including engineering calculation, surveys, etc. as required.

Cool Cash Program Evaluation Timeline

Timeline

1. Cost effectiveness assessments for the prior program year will be available no later than March 31 of the following year.
2. Complete process and impact evaluation for program year 2006 was completed in August 2007 and is available upon request.
3. Planned impact and process evaluations for program years 2006 and 2007 will be completed by February 2009.
4. Planned impact and process evaluations for program years 2008 and 2009 will be completed by February 2011.