

Third Party Verification for Public Benefit Energy Efficiency Programs

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Statewide Energy Policy Drivers

- New York Energy SmartSM System Benefits Charge Program Goals
 - Increase energy efficiency and renewable energy
 - Improve system reliability
 - Facilitate competition
 - Reduce environmental impacts

Purpose of M&V Evaluation

- Third party verification of electric savings
- Realized savings used for cost-effectiveness analysis
- Estimate emissions reductions and other non-energy benefits
- Program design and delivery decisions

M&V Activity Drivers

- Program history and longevity
- Program budget
- Program spending and spend rate
- Claimed program savings
- Program's relationship to energy policy goals
- Program type, i.e., resource acquisition, market transformation

Cost of M&V

- \$ 2.5 million over 4 years
- One NYSERDA FTE
- General Assistance Contractor oversight
- Intangibles
 - Program staff time
 - Support staff time

Implementing M&V Approach

- Challenges
 - Cost
 - Staffing
- Benefits of 3rd Party M&V –
 - Does not rely on self-reporting by end-users
 - Conducted by contractors external to program implementors
 - On-site inspections
 - Contractor reports to independent oversight committee

Lessons Learned

- Program records and data should be set up for evaluation as well as implementation
- Difficulty in obtaining appropriate sample sizes
- Multi-step process for obtaining permission for on-site visits
- Program staff buy-in time may be prolonged

NYE\$ Context

- More than 40 programs
 - B&I, Residential, R&D, Low-Income, Environmental
- 6 evaluation modalities (*M&V is one among many*)
 - Macroeconomic analysis, Theory and Logic, M&V, Market Characterization, Assessment, and Causality, Process Evaluation
- Report to independent oversight committee

Quantifying Emissions Benefits

- Calculated using factors applied to avoided fossil energy generation – SO₂, NO_x, CO₂
- Not monetized nor used in cost effectiveness analysis
- Reported to show progress toward goal of reducing the environmental impact of energy production
- Accepted by stakeholders as reasonable approach