



NORTHEAST ENERGY EFFICIENCY PARTNERSHIPS

New Approaches to Net Savings: Insights and Options

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OVERVIEW OF PRESENTATION



1. Keeping the big picture in mind
2. Relevant Regional EM&V Forum projects to note
3. Limitations of the current Massachusetts model
4. Learning from neighboring states
5. Recommended guiding principles

KEEPING THE BIG PICTURE IN MIND



Net Savings policy should support meeting the state's aggressive state goals... Keep eye on the prize.

Example of unintended consequences of applying Net Savings to track progress towards state goals...

e.g., 2011 NY DPS free-ridership study found SBC lighting programs should no longer promote CFLs... despite 2010 market survey showing *only 25% socket saturation* in NYC

CURRENT EM&V FORUM EFFORTS RELATING TO SAVINGS ATTRIBUTION:



1. **Net Savings Definitions and Policy Research:** Builds on Scoping Study findings, will develop common definition for gross and net savings, and review use and applicability of impacts in energy/environmental policies. MA participating, likely cross-fertilization.
2. **Residential Lighting “Market Lift” Sales Data Collection:** “Upstream” retail promotions of efficient lighting with comprehensive sales data collection from participant and comparator states
3. **Attribution of EE Impacts from Advancing Building Energy Codes:** National project to propose attribution framework, estimate savings potential, and develop regulatory guidance
4. **US DOE Uniform EM&V Methods Project:** US DOE project to develop recommendations for evaluation approaches including for net savings
5. **Regional EE Database (REED) and Coordination with ISO-NE on Data to support Forecasting:** Will use same savings data sources

REVIEW OF FINDINGS FROM FORUM NET SAVINGS SCOPING STUDY



- Net savings measurement is challenging, but still important because it meets current regulatory and program needs
- No measurement approach is perfect, but there are opportunities to improve measurement, fill data gaps, and increase flexibility
- The EE community has inconsistent definitions, measurement practices, and opinions about what is needed
- Practices are driven by policy and influenced by resources
- There is no current policy that would enable the region to move away from the status quo

ATTRIBUTION - THE BIG PICTURE



WHY WE CARE:

- Program design
- Regulatory responsibilities
- Shareholder incentives

UNINTENDED

CONSEQUENCES:

- Understated savings
- Overly conservative program efforts
- Impact on system planning
- Diverts attention from higher objectives, i.e.: Commonwealth's energy and climate goals

REGULATORS' CONUNDRUM



- Want to set aggressive efficiency targets
- Align evaluation framework with goals - portfolio and broader public policy, both
- Want to work with environmental & air regulators to reduce carbon emissions
- Need to be prudent
 - Strict, conservative accounting
 - Least-cost resource requirements
 - Invest in the right amount of T&D upgrades
 - Avoid rate increases, get good value for customers

THE CURRENT MASS. MODEL



- Not fully supporting aggressive state savings goals on EE and climate
- Currently adjusted gross savings are not reported in PA annual reports (only net savings)
- Misalignment with other energy and environmental policies/methods e.g., how is “naturally occurring” EE defined/determined? Gross vs net used to support system planning, air quality planning

A CASE STUDY: RESIDENTIAL LIGHTING



- Rapidly evolving market
- Requires customer self-reported data from surveys
 - Reliability questioned due to response bias
 - Difficult to attribute influence of any given program year's participation from that of previous years
 - Other media influences on customers' decisions
- Program effects likely cumulative, multiple years
- Overlap multiple programs & market actors
- Result: current approaches can understate savings, making program aims overly conservative, and divert attention from overarching policy goals

A LOOK AT SOME OTHER STATES



- **New Hampshire** - Decided free riders & spillover cancel out, so just reporting gross savings
- **Vermont** - Performance Goal Adjustment Mechanism prospectively implements net savings and baseline updates, but holds PA's harmless
- **Maryland** - Gross savings figures when reporting achieved savings and progress toward state goals; net savings inform cost-effectiveness and program design
- No other state in region does retrospective adjustment to assumptions

RECOMMENDED GUIDING PRINCIPLES



- Keep state's policy goals - energy *and* environment - in mind
- Take a long-term, multi-year perspective
- Continue to perform EM&V - but think carefully about how to apply it
- **Flexibility** is vital:
 - Allow for experimentation
 - No need to lock in one methodology for next three years
 - Use mid-course corrections to adjust

GUIDING PRINCIPLES CONT.



- Explore past trends in program and sector-level NTG ratios to help understand overall inform decision about next steps
- **Balance EM&V investment in free-ridership studies vs market effects; balance investment in attribution studies vs determining gross savings;**
- **Consider value of keep it simple (e.g., hybrid approach that uses deemed values for NTG where appropriate)**
- **Consider approaches used in VT and MD - be open to thinking beyond “methods” and look carefully at application**

CLOSING THOUGHTS



- Need to align discussion of net savings with naturally occurring efficiency and C&S savings
- Pay attention to what ISO NE is doing starting with 2012 RSP - forecasting long-term EE, using reported 2011 net savings #s. For 2013-15:
 - Want to ensure savings are not understated (due to absence of market effects).
 - Implications on long-term impact to ratepayers in MA
 - What is ISO assuming about C&S in its forecast?
- Program level NTG may be “noise” in the bigger picture, long-term - for meeting goals, system planning and air quality planning
- *Don't let the perfect be the enemy of the good!*



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