

Uniform Methods Project Steering Committee Meeting Notes – 5/17/2012
Residential Whole House Retrofit
NRECA Small Utility Presentation

Attendees

Mike Brandt
Tom Eckman
Carla Frisch
Donald Gilligan
Miriam Goldberg
Brian Granahan
Hossein Haeri
David Jacobson
Chuck Kurnik
Diana Lin
William Miller

William Newbold
Mary Ann Ralls
Chuck Rea
Phyllis Reha
Alex Rekkas
Amy Royden-Bloom
Steven Schiller
Alan Shedd
Dick Spellman
Graham Wooding

- Welcome and logistics

Mimi Goldberg – Overview of protocol: Residential Whole-House Retrofit

- Describe conditions where this protocol is applicable
 - Does not include new construction
- Began defining approach from ideal situation, worked from there
 - Randomly selected control group
 - Savings are net
 - Two-stage analysis is recommended
- If target population, two-stage, but considered gross, not net
- Participation staggered over one year
 - Analysis with pooled regression and no comparison group
- Not randomized, not stable – between net and gross
- If participants have different characteristics than average population, select nonparticipants similar in terms of those demographics for better comparison
- Comparison group dependent on program situation
- “Good” comparison group – two-stage approach; PriSM-type model; in second stage look at changes in pre- and post-.
 - Savings relative to standard conditions
- Situation without comparison group – pooled time-series cross-sectional approach
 - Must be staggered across seasons
 - No site-level estimates (all pooled)
 - No standard efficiency baseline (comparison between pre- and post-)

- If have pre-and post- that is different for each participant, you need a comparison group that reflects that
- Pooled approach – recommend flexible degree day base
 - Data across different seasons
 - Parameter interactions
- Concern regarding self-selection
- SC Member – How does this work for measures that are not climate-relevant?
- Mimi Goldberg – If the only thing you did was non-weather sensitive, this would still be the correct approach.
- SC Member – Developing a model with respect to degree days, the non-weather dependent factor should be taken out first.
- Mimi Goldberg – Lighting for example, will show up in base coefficient.
- SC Member – How to adjust for degree day balance points? Is there a minimum population size?
- Mimi Goldberg – Two-stage is one site at a time and then aggregated across the population. Did not put explicit guidelines for minimum. I like 300, but depends if big or small savings.
- SC Member – Why use past participants?
- Mimi Goldberg – There is symmetry between saying someone who has not yet been in the program can serve as a comparison group. Someone who was already weatherized should show no change between pre- and post-. If you run the experiment in reverse in time, difference from going from weatherized to non-weatherized delta is the same in reverse.
- SC Member – When this method is introduced, I would suggest you describe why it's selected, what it can and can't do, strengths and weaknesses, so it's not assumed to be the method, period. Consistency with other efforts. The term "billing analysis" is one I'm trying to avoid in my work for these approaches which require more than looking at bills.
- Mimi Goldberg – What term do you use?
- SC Member – Global term is large scale data analysis. I don't know if there's a right answer.
- SC Member – Interval data from metering processes – what advantages might that provide? Interval data can give better data than monthly.
- Mimi Goldberg – Good question, but not sure it has to get into this protocol.
- Ken Agnew – Very little academic research that is more current.
- Mimi Goldberg – We haven't provided cost benefit analysis on the method itself. Method like this is relatively inexpensive, data already exists.

NRECA PRESENTATION

- We expressed concerns about UMP for small utilities and coops.
- Report with GDS to discuss alternative methods; shared with American Public Power Association; supportive
- Rural electric cooperatives – missions
- EE usually falls under engineering,
- Concern about cost associated with draft protocols
- 2% rate increase to conduct \$1,000,000 worth of evaluations..
- One size fits all does not equal uniformity; must be balance with how protocol is implemented; recommend our utility's approach is built in
 - If certain requirements are met, should be able to use deemed savings from TRMs
 - Update deemed savings every few years to incorporate standards
- SC Member – What is considered small utility?
- Description in small business regulations manual (?)
- SC Member – What is size?
- Currently 4 million MWH, more a description in the SPA itself.
- Is four million MWH in sales or is it total revenues or number of customers?
- MWH sales
- We're proposing this approach be available for utilities' coming in this description.
- Hossein Haeri – The estimate for cost for implementing these protocol seems high to me. Billing analysis can be low cost. Utility employees can implement it.
- Smaller utilities pooling resources and then do a wider range of sampling. Frequency of evaluations, not proposing to do the evaluations every year. Other issue is using TRM are you proposing using the savings...?
- Source of cost figure from DOE guide published in 2006. Lowest end of range. \$168,000 to \$560,000. Second question about pooling, that's not really feasible for coops given business structure and how they operate. Even for coops within same region, because there are so many differences and they don't implement similar programs or necessarily occupy the same climate zone.
- DOE – The cost estimates that they are referring to do not apply to UMP, coming up with costs might be premature.
- SC Member – A typical coop with small sizes and lack of employees, what the financial impact is.
- DOE – Pooling is possible and although difficult, small utilities should consider.
- Hossein Haeri – Utilities in CA and PNW are pooling resources.
- Dick Spellman – The evaluation costs for coops could be significant. Building analysis might be less expensive, we just wanted to point out that the costs for small utilities could be significant.
- DOE – Deemed savings can use pooling.
- Dick Spellman – For PNW, there is opportunity for state- or regional-level. If protocols are used to create those values where possible, some advantages to doing that.

- SC Member – The use of these protocols is to update deemed values, administratively easy, accurate over time, in MI big utilities majority , small utilities contribute.
- How many of the coops would fall into the category of below 4 million in sales?
- Dick Spellman – we can get you that information after the meeting ends
- 4 million MWH is a large utility, half the size of Seattle. Please clarify.
- Hossein Haeri – We should have another conversation between Cadmus, GDS, Mary Ann and get back to the SC. Might be other options for economies of scale. Issue of using deemed savings, whether any verification would be required, or utilities reporting how many measures installed. We'll come up with language in the document to clarify.
- Dick Spellman – We will set it up.
- SC Member – About definitions, EIA glossary, good definitions of major utility and coop, good reference point.
- SC Member – How small a utility has to be. Should we encourage munis to collaborate with investor-owned?
- Dick Spellman – Lots of ways to leverage scale.
- Hossein Haeri – No point in trying to split hairs over what is a small utility. Focus on basic concept, utilities without resources to implement these individually.