



Evaluation of the Regional EM&V Forum

Final Report

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1 Evaluation Overview

This report presents the results of an evaluation conducted of the Regional Evaluation, Measurement & Verification (EM&V) Forum (the Forum) for the Northeast Energy Efficiency Partnerships (NEEP) to assess the effectiveness of the first three years of the Forum's operation and provide planning guidance going forward. The evaluation was conducted by Evergreen Economics under the direction of a Forum Evaluation Subcommittee, with day to day management by Forum staff.

The report is structured as follows:

- First, we discuss evaluation issues addressed and methods used, including data collection and sampling approaches.
- Next, key themes that emerged from the evaluation findings are presented, providing a high level overview and context for the specific results that follow.
- Detailed results are then presented, in the following order:
 - First, the effectiveness of each of the Forum's three Core Functions: Protocol Development, Research & Evaluation (R&E) and Education and Information Access
 - Next, the effectiveness of Forum Operations, including the operational structure and financial issues
 - Then, the relative priority and importance of key issues in shaping the direction of the Forum's strategic planning.
- Finally, recommendations are made for the Forum to consider as it makes plans to move forward beyond 2011

In addition, the report includes several appendices, including the evaluation recruitment letter for data collection, a summary of Forum goals and activities that was sent out to serve as background for respondents, interview and online survey instruments and a listing of survey questions showing the number and percentage of responses offered to each.

1.1 Evaluation Goals and Issues Addressed

Consistent with the Forum's Three-Year Plan (2009-2011), the purpose of the evaluation was to assess and document the Forum's activities and accomplishments to date, the extent to which it is meeting its value proposition, and to inform strategic planning for the future with regard to Forum structure, function, scope and funding construct.

As detailed in the Forum Summary sent out to inform respondents before the interviews and surveys:

The Forum's main activities over the past three years...focused on: developing common statewide reporting and EM&V methods guidelines, conducting joint research and evaluation projects, and serving as an EM&V information resource through its Resource Library. These efforts and associated products, when implemented and used by the states, are intended to lead to the Forum's desired outcomes:

- *Reduce evaluation and other research costs by leveraging funding*
- *Develop consistent data and methods to support air quality and climate change reporting and planning*
- *Support integration of energy efficiency (EE) into energy system and transmission planning processes*
- *Inform the likely development of national EM&V standards/protocols*
- *Increase the credibility of EE demand resources*

The overall evaluation goal was to assess progress toward these goals and determine which Forum activities should be started, stopped or continued/modified to most effectively support the Forum's value proposition. Specific research objectives included:

- Documenting the Forum's activities and accomplishments to date;
- Assessing the extent to which the Forum is meeting its core objectives (protocol development, research, information dissemination) and providing value to its members and stakeholders
- Determining whether the Forum's organizational structure and processes, including budgeting and cost sharing, support the Forum's desired outcomes
- Providing input to strategic planning by prioritizing anticipated regulations, EM&V requirements and policy changes as they affect post-2011 Forum activities
- Identifying needs for new or modified products, studies, information sharing
- Developing recommendations for future Forum scope, activities, structure and funding

1.2 Evaluation Methods

The evaluation approach was based on tapping the experience and perceptions of Forum participants and other stakeholders through in-depth interviews and an on-line survey. The survey population was drawn from the Forum distribution list, which comprises approximately 200 individuals.

From this list, Forum Evaluation subcommittee members and NEEP staff identified about two dozen potential candidates for in-depth interviews. These were people who have been heavily involved with the Forum, either from its inception or through specific projects or committees.

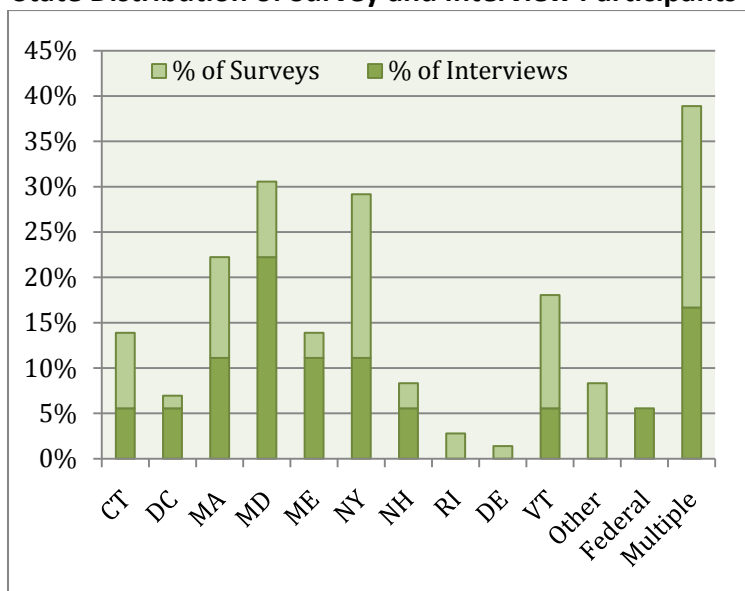
A total of 18 telephone interviews were conducted with 19 of these stakeholders (one interview involved two respondents), with participation covering almost every state as well as several Federal agencies. In addition, a variety of stakeholder types were represented, as

shown in the exhibit below. Several Evaluation Subcommittee members also provided written responses to the interview guide, but they are not included in the 18 interviews above. We used their comments to inform our overall analysis of interview responses.

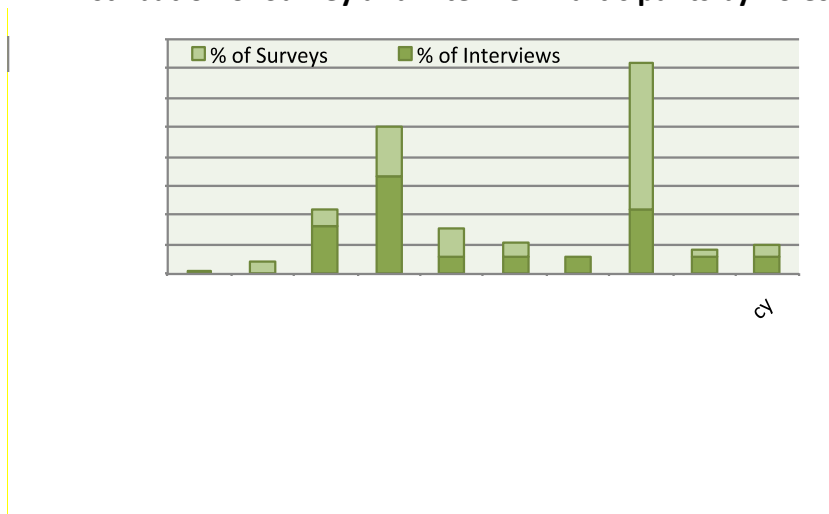
Of the remaining names, some were dropped based on recommendations from subcommittee members who knew that specific individuals either were unavailable or were no longer involved with the Forum, resulting in a list of approximately 160 survey candidates.

For the rest of the names on the list, an email was sent inviting the stakeholder to participate in an online survey, which covered most of the same topics as the in-depth interviews but was designed to capture more structured responses. Respondents were directed to a participant-specific link to complete the survey. Several follow-up telephone calls and emails were sent encouraging people to respond, and 72 surveys were ultimately completed (several other potential respondents who had been away offered to complete the survey after the response period was closed, but it was not possible to collect their input.) Note that while the number of names on the Forum distribution list was close to 200, some names were dropped as described above, and others stakeholder sent messages saying they would be unable to complete the survey. As with the interviews, respondents comprised a good distribution by state/region as well as by function.

State Distribution of Survey and Interview Participants

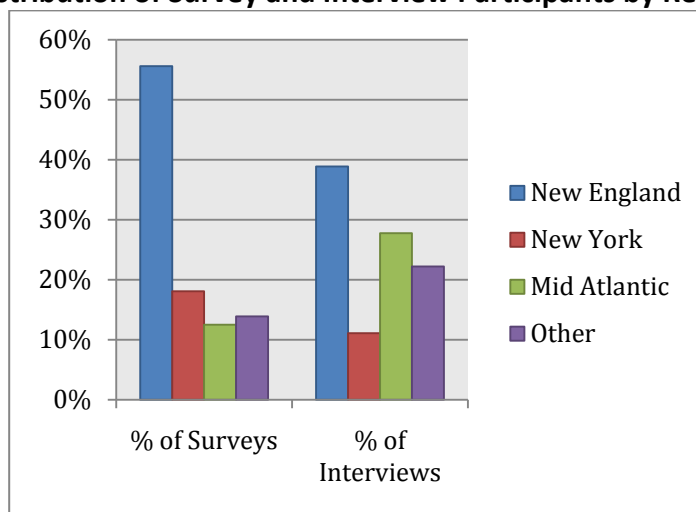


Distribution of Survey and Interview Participants by Roles



To look beyond responses at the state level, we combined respondents into four “regions” – the New England states (ME, VT, NH, RI, MA, CT), New York, the Middle Atlantic states (MD, DE, DC) and Other, comprising respondents from Federal agencies or consultants with no specific state affiliation. Results are presented below. The interview guide and survey instrument are provided in Appendices C and D, respectively.

Distribution of Survey and Interview Participants by Region



2 Findings

As a prelude to the discussion of specific findings, the following were among key themes that emerged as we analyzed the interview and survey results – themes that directly address the overall goals of the evaluation.

2.1 Key Themes

- **Forum offers value but current agenda may be overly ambitious.** An overarching theme was that the Forum’s mission is a worthy goal that should be continued, albeit with some modifications. While the work products completed to date are recognized as being of high quality, stakeholders believe the Forum has a full plate, and should build on existing or completed projects rather than launching new initiatives.
- **Theoretical versus practical value a concern for some products.** Implementation of Forum products -- specifically protocols -- has been spotty. While this can be attributed in part to the fact that many products are still relatively new or are just being completed, it may also reflect a lack of understanding of Forum products and how they can be applied within individual states to address their specific needs and concerns. In addition, some Forum products are perceived to be (and some of course are) tailored to the needs of a few states rather than the membership as a whole. Finally, a number of respondents supported the Forum’s goals and said that its products are potentially valuable, but this perceived value was not always related to direct usage; instead it was sometimes described with phrases like “a worthy goal”, “others may use” or “let’s try implementing.”
- **The broad Forum agenda makes participation challenging.** With multiple other responsibilities, program administrators and regulators alike simply do not have the time to become engaged in all aspects of Forum activities. While interview respondents were selected for their active and broad-based involvement with the Forum, the overall pool of survey participants typically had more limited involvement, with over half of those surveyed describing themselves as “not very involved” in Forum activities. This limited involvement is reflected throughout the report in the high percentage of “Don’t Know” responses to many questions.
- **Progress, but much still to be done.** Overall, respondents indicated that the Forum has made some progress toward enhancing the credibility of energy efficiency as a resource, but that much remains to be done. There is a preference for focused research that delivers tangible results -- such as load shapes and persistence values -- over protocols, with some interview respondents stating that this type of work product will help enhance the credibility of energy efficiency as a resource.

2.2 Respondent Degree of Involvement

Limited involvement of most participants was identified in response to a survey question specifically about the degree of involvement. Even among interview respondents, who were selected for their high level of overall involvement in the Forum and who were generally familiar with multiple projects and processes, a few declined to answer sections of the interview because they said they lacked knowledge of that particular aspect of Forum operations.

Survey respondents were generally less involved. Results overall and by region, shown below, indicate that only New England had more than half of survey respondents describe their participation, as very or somewhat active, while fewer than one-third of New York respondents said they were at least somewhat active.

	Degree of Involvement		
	Very active	Somewhat active	Not very active
New England	5%	48%	48%
New York	8%	23%	69%
Mid Atlantic	0%	44%	56%
Other	0%	40%	60%

Those who characterized themselves as not very active were asked why they have not been very active in the Forum, and were able to enter multiple responses in the online survey. Results for the 39 respondents who fit this categorization are shown below. The responses that others in their organization are active, their own role does not require frequent participation, or they are too busy were offered by roughly half of the not very active Forum participants, while about one-fourth of respondents said they were new to their organization and role.

Reason for Non-Involvement	
Reason for Inactivity (n=39, multiple responses accepted)	Percent
Others in my organizational are active	54%
My role does not require frequent participation	51%
Am too busy	49%
Am new to my organization/role	23%
Participation benefits are not worth time demands	5%
Calls/meetings are at inconvenient times	3%
Other	10%

2.3 Forum Success in Meeting Value Proposition

Both interview and survey respondents were asked about their perceptions regarding the Forum's success in meeting the various components of its overall value proposition.

Most of those interviewed said the Forum had been **somewhat to very effective in supporting state, regional and national EM&V needs**, with respondents often explaining that the amount of progress the Forum has made, though limited, was impressive in light of the fact that many initiatives were relatively recent or just being completed. Suggestions for improvement tended to center on reducing the number of projects and continuing to focus on research projects that provide concrete, actionable results.

Similarly, most respondents said the Forum has been somewhat successful in helping to **build the credibility of energy efficiency as a resource**. Several pointed out that Forum activities have helped states such as Maryland move into energy efficiency activities, but all noted that remaining barriers to the acceptance of energy efficiency as a resource among system operators and air quality regulators will take time to overcome. System operators' perceptions and attitudes have also slowed the Forum's success in supporting integration of energy efficiency into energy system and transmission planning processes, and several interviewees suggested keeping or getting system operators involved in more Forum activities.

Finally, most respondents agreed that the Forum had helped deliver **monetary savings to participants by leveraging resources to fund projects**, even though several key research projects are just wrapping up. A few of the more experienced New England states noted that their benefits from the shared research were limited, but nevertheless recognized that other states could save substantially from the shared research effort.

Among survey respondents, perceptions regarding Forum effectiveness in meeting specific goals were as shown below. Excluding those respondents who offered a Don't Know response, about 60-70% of all those surveyed said the Forum had been somewhat effective in addressing the five goals listed. Effectiveness was perceived to be greatest in the Forum's success in helping to enhance EM&V practices at the regional level, and least in helping to address the integration of energy efficiency with both air quality and system planning.

Forum Effectiveness in Meeting Specific Goals

	Very effective	Somewhat effective	Not very effective	Not at all effective
Helping address the integration of energy efficiency with air quality planning	4%	68%	15%	12%
Helping to address the integration of energy efficiency with system planning	9%	71%	17%	3%
Helping to enhance EM&V practices in participant's state	20%	65%	11%	5%
Helping to enhance EM&V practices in participant's region	37%	61%	2%	0%
Helping to enhance EM&V practices on a national level	12%	72%	16%	0%

Survey results also addressed whether the Forum had helped deliver monetary savings by leveraging resources for expensive research projects. Most respondents (over 70% of the 35 applicable responses) said that joint funding had delivered some or high savings, while fewer than 30% said it had delivered low or no savings.

Savings from Forum Research

To what extent has the Forum's doing research and evaluation projects approach saved your organization money?	% of 35 applicable responses	% of all 72 responses
High Savings	11%	6%
Some Savings	60%	29%
Low Savings	23%	11%
Now Savings	6%	3%
Does not Apply		15%
Don't know		36%

2.4 Forum Effectiveness in Core Functions

Both interview and survey respondents were asked about their perceptions regarding the Forum's overall effectiveness in supporting its core functions.

Most stakeholders interviewed offered a positive assessment of Forum efforts in all three core areas, but noted that implementation had been relatively limited, which is not surprising since a number of efforts have been completed only recently or are nearing completion. Responses were generally split between very and somewhat effective, with a slightly higher proportion of very effective responses for Research and Evaluation, primarily because of barriers to implementation of various protocol efforts, as discussed below.

Survey respondents offered similar ratings, but as noted previously, many offered "don't know" (DK) responses. Results both with and without the DK responses are presented below.

Forum Effectiveness in Core Functions -- Survey Respondents

Please assess how effective the Forum has been in conducting each of its core functions:	Very	Somewhat	Not Very	Not at all	Too early to tell	Don't know
Common EM&V and Reporting Protocols	25%	26%	4%	0%	4%	40%
Excluding DK	42%	44%	7%	0%	7%	
Research and Evaluation Projects	32%	35%	0%	0%	3%	31%
Excluding DK	46%	50%	0%	0%	4%	
Education and Information Activities	15%	28%	4%	0%	3%	50%
Excluding DK	31%	56%	8%	0%	6%	

In the following sections, a more detailed discussion of participant perceptions of specific aspects of each core function is presented.

2.5 Protocol Development

While protocol development efforts are seen as a sound idea in theory and a potentially valuable contribution to the regional EM&V effort, the difficulty of implementing protocols caused some interview respondents to question whether this was an appropriate function for ongoing allocation of Forum resources. There are, of course, different aspects to protocol development, with different perceived degrees of importance, past success and future importance, as discussed below.

Survey respondents were asked to rate the importance of several specific protocol development efforts and work products. Results, shown on the following page, indicate that both protocols to guide EM&V studies and common savings assumptions are perceived as somewhat more important than common reporting formats.

Importance of Protocol Development Efforts – Survey Respondents

	Very important	Somewhat important	Not very important	Not at all important	Don't know
Importance of Common Protocols to Guide EM&V Studies	43%	44%	7%	3%	3%
Excluding DK	44%	46%	7%	3%	
Importance of Common Energy/Demand Savings Assumptions	50%	39%	7%	0%	4%
Excluding DK	52%	41%	7%	0%	
Importance of Common Reporting Formats for Savings Data and Associated Cost and Emission Reductions	38%	42%	11%	7%	3%
Excluding DK	39%	43%	11%	7%	

To gauge the level of involvement in specific protocol development efforts, survey respondents were asked whether they had reviewed a specific work product and if so, how they rated its quality.

Items Reviewed by Survey Respondents

	Yes	No	N/A	Don't know
Glossary of Terms and Acronyms	53%	39%	4%	4%
Regional EM&V Methods and Savings Assumptions Guidelines	46%	44%	3%	7%
Common Statewide Energy Efficiency Reporting Guidelines	49%	43%	4%	4%
Mid-Atlantic Technical Reference Manual	18%	65%	13%	4%

Perceived Quality of Product Reviewed

(N= yeses and don't knows from above)	Very good	Good	Fair/ average	Don't know
Glossary of Terms and Acronyms (n=41)	50%	40%	8%	3%
Regional EM&V Methods and Savings Assumptions Guidelines (n=37)	30%	64%	3%	3%
Common Statewide Energy Efficiency Reporting Guidelines (n=38)	31%	46%	20%	3%
Mid-Atlantic Technical Reference Manual (n=22)*	31%	31%	31%	8%

* Lower response rate (n=22) is due to this being a sub-region project (3 states)

They were also asked how often they used these same work products. Results are shown on the next page and will be cited as appropriate in product-specific discussions.

Frequency of Use

	Often	Sometimes	Very little	Don't use at all	Don't know
Glossary of Terms and Acronyms	11%	31%	22%	8%	28%
Excluding DK	15%	42%	31%	12%	
Regional EM&V Methods and Savings Assumptions Guidelines	13%	33%	13%	10%	32%
Excluding DK	18%	49%	18%	14%	
Common Statewide Energy Efficiency Reporting Guidelines	8%	26%	17%	17%	32%
Excluding DK	12%	39%	24%	24%	
Mid-Atlantic Technical Reference Manual	7%	17%	6%	39%	32%
Excluding DK	10%	24%	8%	57%	

As shown above, the **Glossary of Terms & Acronyms** was the most reviewed product. It is also being widely used, with several interview respondents noting that the glossary was particularly helpful in getting less experienced staff up to speed and ensuring that states new to energy efficiency programs could have regulators and program administrators using a well understood set of terms.

With regard to **Regional EM&V Methods Guidelines**, interview and survey respondents offered mixed opinions. While most rated this aspect of protocol development somewhat or very important and it was often used by survey respondents, it was generally considered more important to the credibility of energy efficiency by policymakers than by practitioners. A number of those interviewed cited the difficulty of implementing these guidelines and the fact that adoption has been limited, noting that NEEP lacks authority to require implementation and that many states already have EM&V methods in place that have been developed over decades. Finally it was pointed out that the Forum guidelines are generally not promoted by regulators, who are often constrained by legislative or other state-specific requirements.

The **Net Savings Scoping Paper** was not addressed in the survey, but interviewed stakeholders said they considered it an important issue that had been well presented and discussed by the Forum. Concerns about allocating additional resources to this topic focus on implementation challenges. Several respondents said they think states are likely to retain control of whether and how net impacts are calculated, while some potential users (e.g., air quality regulators) are more likely to focus on gross. In addition, the issue of net savings is complicated by the myriad of factors that may be influencing customers to take energy saving actions in today's environment, making it extremely difficult to attribute those actions to a specific program or programs.

Similarly, **Building Codes** were also discussed only in the interviews. Respondents reported growing interest in the Forum's Codes and Standards products and anticipate that there will

be greater use of these products to shape the design and implementation of codes in the future.

As shown in the previous exhibit, more than half of survey respondents said that **Common Savings/Demand Assumptions** were of high importance. These sentiments were generally echoed by interviewed stakeholders, who noted that while the topic is important, the work products were of limited utility because of implementation challenges created by overlap with existing state products and specific requirements at the state level. The Mid-Atlantic TRM, however, was cited as an often used and highly valued work product in this category in the relevant states, even though its overall reported usage was lower than other products because of its more limited geographical scope.

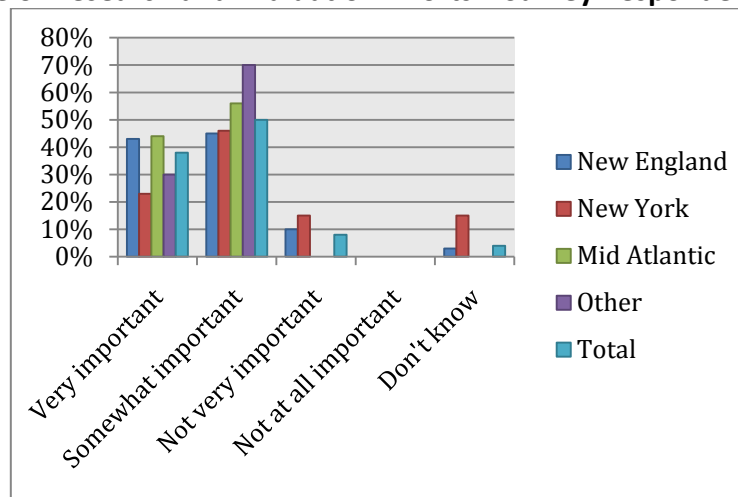
Development of **Common Energy Efficiency Reporting Guidelines** is seen as an important goal to help enhance the credibility of energy efficiency and to support inter-state comparisons. There appeared to be some confusion among respondents regarding the status of these guidelines, which are not due to be implemented until next year. However, a number of respondents said they expect implementation challenges, in part because different states have differing existing commission requirements, data availability and reporting schedules, so that providing data in accordance with the Guidelines will require a duplication of effort. In addition, they see potential risks from terms not being used consistently and different assumption regarding savings values and other inputs. Finally, some respondents suggested that additional iterations may be needed, perhaps in coordination with regional system operators.

Perceptions regarding the Forum's role in **Informing National Protocols** tend to vary with the specific activity considered. Most respondents said it is important for the Forum to track national activity as new protocols are considered or developed, and several added that NEEP and the Forum are doing an excellent job both in informing their members and in engaging in discussions. Not all stakeholders favor national protocols, however, and the Forum clearly does not have the authority to speak for all the states with member organizations. Moreover, respondents pointed out that it is impossible to predict when national efforts might be stopped, started or redirected.

2.6 Research and Evaluation

Joint research and evaluation efforts such as the loadshape, measure persistence and incremental cost studies received were considered important by most respondents across regions.

Importance of Research and Evaluation Efforts – Survey Respondents by Region



This Forum activity is highly valued, with respondents in all states reporting that they use the results of these studies for planning design, TRMs and savings filings. Because the research effort supports better EM&V, respondents said, it builds credibility for energy efficiency overall. Several stakeholders said that this activity should continue to be a high priority for the Forum, since it effectively helps states leverage available funding.

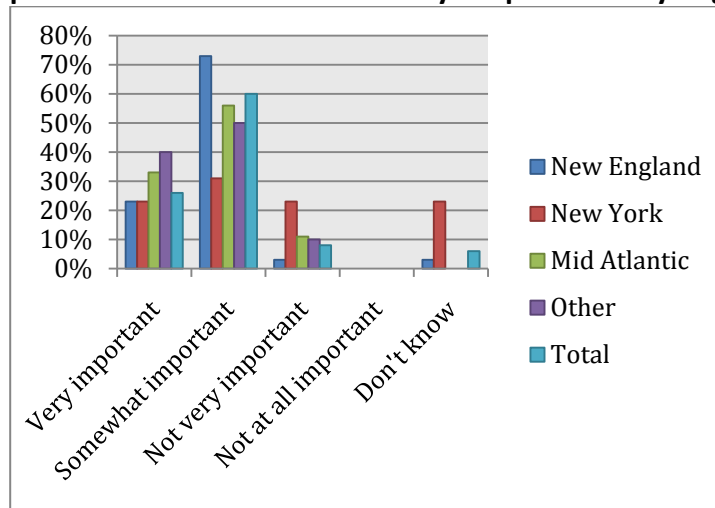
Challenges noted by those interviewed included the difficulty of participation in these studies because of the broad range of issues addressed. Some respondents cited delays and cost overruns on some projects, while others pointed out that savings to individual states are limited by the need to ensure enough study sample points to satisfy requirements of multiple regulators and regional system operators.

2.7 Education and Information Access

Education and Information (E&I) activities are seen as important to Forum success, with one respondent highlighting this key role by asking (rhetorically) “what good are the work products if no one knows about them?” Interviewed stakeholders mentioned the high quality of work products and other materials that effectively use graphics to present complex information. Forum staff were also praised for their skill in organizing and presenting well-run meetings and events that provide attendees with detailed information on Forum activities.

The importance of “studies, reports, recommendations, references and other technical information to support Forum stakeholders” was not ranked as high by survey respondents, with somewhat fewer providing “very important” ratings and somewhat more assigning “not very important” ratings.

Importance of Information – Survey Respondents by Region



As noted previously, survey results also confirmed the perceived value of E&I access activities, with about 90% of those who offered an opinion stating that they thought these activities were very or somewhat effective in advancing Forum goals.

There were some suggestions for improvement and challenges identified. One respondent who suggested a shift in Forum priorities to supporting implementation rather than developing new work products said this could mean a need to offer training for regulators on Forum work product availability and implementation strategies. Another stakeholder suggested a current database of evaluation results (not just those done by the Forum) that does not duplicate others, while another felt that the Forum should place greater emphasis on informing the air quality community of Forum initiatives.

Interviewees said they also find the Forum website useful, and use it mostly to access reports and prepare for meetings. Concerns voiced by interviewed stakeholders include a somewhat outdated look that was described as “not as easy to use as I would like,” the fact that research is sometimes hard to access, and that some material is not accessible to those outside the immediate committee working on a project.

Among survey respondents, over half said they use the Forum website at least quarterly, while about 30% use it once a month or more. Of those who use the website, 80% said they always or mostly find what they need. Materials accessed include:

- specific study results (mentioned by 26% of those surveyed)
- upcoming meetings (19%)
- project status (17%)
- meeting minutes (12%)
- miscellaneous technical information (11%)
- protocols (10%).

As shown below, most survey respondents said they found the website very or somewhat useful.

Usefulness of Forum Website	
	Percent
Very Useful	34%
Somewhat Useful	61%
Not Very Useful	3%
Not at All Useful	2%

2.8 Forum Operations

Forum operations, including the structure and composition of Forum leadership and the allocation of costs, were discussed with interviewed stakeholders and addressed in the online survey.

2.8.1 Geographic Composition and Funding

Stakeholder perceptions regarding geographic balance in the Forum’s operations reflect NEEP’s historical New England focus. Interviewees from the Mid-Atlantic states recognized that their New England counterparts have more energy efficiency experience, and they appreciate NEEP reaching “beyond its traditional footprint” with the Forum, emphasizing that the Forum has helped them ramp up programs and EM&V activities more rapidly than would have been possible otherwise. In contrast, some of the larger states and those in New England with years of EM&V history saw newer, less experienced states requiring more “basic education,” thereby requiring added work with fewer benefits to the larger states.

Not surprisingly, both large and small states expressed some concerns regarding fairness of the formula used to determine funding contributions: bigger states tend to feel they pay too much and do too much of the work, while some respondents from smaller, newer states felt that the 7% minimum contribution is too high relative to their share of total electricity consumption. Overall, however, most members of both groups accepted the formula as equitable.

Respondents from both large and small, old and new states were more concerned about potential budget shortfalls, whether due to constrained state budgets generally or individual states dropping out of (or not joining) the Forum.

2.8.2 Stakeholder Mix

With regard to the mix of various types of stakeholders, the Forum is generally perceived to be focused on regulator participation, since this is the group that makes and enforces the rules regarding how EE savings are measures. Respondents noted, however, that regulator flexibility is often constrained by legislative mandates and other state or sub-regional requirements. Moreover, they pointed out that top-down imposition of Forum-developed protocols generally has not happened and does not seem likely in the near future. This caused

some stakeholders to suggest that perhaps the Forum should seek out more program administrator involvement to initiate a bottom-up push for protocols.

In an effort to influence other actors who play or might play an increasingly important role in how EM&V is conducted, a number of respondents believe that there is a need for greater involvement and buy-in from regional system operators (e.g., NE ISO, PJM) and to a lesser extent from Air Quality regulators if protocols are to gain broad acceptance.

2.8.3 Structure

While interview respondents understand that the Forum must be structured to deal with multiple issues and projects, there is a concern that the complexity of the current structure may hinder both participation and the achievement of stated goals. As a result, a number of stakeholders suggested streamlining Forum organization.

Specific feedback included a concern that there are too many committees and projects relative to Forum staffing and budgets. Some respondents noted that there is "committee overload" and confusion, with everything called a "committee."

While this structure does allow for input from everyone, the more experienced Forum members are always in demand, so that the most knowledgeable participants are the busiest. At the same time, when committees are insufficiently focused, having too many inactive participants leads to a least-common denominator effect on decision-making that reduces the value of work products. A number of stakeholders expressed the opinion that the Forum could be more effective if streamlined, with fewer projects and associated committees. They note that under the current structure it is difficult for them to prioritize what to review and when.

2.9 Strategic Planning

Both interview and survey respondents were asked their opinions regarding the appropriate direction for the Forum going forward. Specifically, they were asked to rate the importance of a set of strategic issues and trends as they might affect the direction of the Forum's activities over the next few years.

The consensus among interviewed stakeholders was that the Forum has a full plate and should build on existing or completed projects rather than taking on significant new work. Overall, no survey respondents offered any specific suggestions when asked if there were any other pending changes in policy or trends in EM&V that the Forum should address in the 2012 - 2014 plan.

With regard to the specific issues they were asked to rate, the importance of trends and issues, ranked from most to least important based on survey results, is shown below. Note that the ranking for "Informing National EM&V protocol development" may have been skewed by the linkage to National EPA GHG regulations

Perceived Importance of Strategic Issues to Future Forum Activities

High =3	Med=2	Low=1	Mean	Perceived Importance of Strategic Issues to Future Forum Activities
54%	34%	12%	2.42	Provide access to consistently reported EE data and analyses through regional EE database
47%	42%	10%	2.37	Develop common regional guidance for integration of EE into regional system planning
45%	39%	15%	2.30	Assess need and propose new methods and approaches for EE cost-effectiveness analyses
39%	46%	14%	2.25	Develop regional guidance for using Smart Grid and AMI capabilities to support EM&V
40%	40%	19%	2.21	Develop guidance for integrating EM&V for demand response with energy efficiency
29%	43%	29%	2.00	Inform national EM&V protocol development to support National EPA GHG regulations

3 Recommendations

Overall, the results of the evaluation show that the Forum is seen by stakeholders as a valuable contribution to EM&V in the region, and that it should be continued, albeit with some modifications.

Since the format of this evaluation was to develop a set of stop/start/continue/modify recommendations, both interview and survey respondents were asked their opinion regarding the appropriate action for each of the Forum’s three main activities.

For protocol development, about 40% of interview respondents suggested some modification of Forum efforts; for example by focusing more on implementation assistance or by reducing the number of protocol projects pursued. In contrast, almost all interview respondents recommended that both Research and Evaluation and Education and Information activities be continued, with only a handful offering modifications as previously described.

For those who completed the survey, the vast majority of those who offered other than Don’t Know responses recommended that all core activities be continued, with fewer than 10% saying they would recommend modifications and about 5% recommending that work on Protocols be stopped.

Survey Participant Recommendations

	Stop	Continue	Modify	Don't know
Common EM&V and Reporting Protocols	3%	56%	6%	36%
Research and Evaluation Projects	0%	68%	3%	29%
Education and Information Activities	0%	51%	6%	43%

Recommendations for specific activities and work products are presented below.

3.1 Protocols

For **Protocols Overall**, there were mixed opinions on future direction. While a majority of those completing the online survey recommended continuing the protocol development work, a substantial number of the engaged interview respondents believed that significant modifications are called for. We recommend that the emphasis of the Forum’s Protocol work be shifted from development to implementation. Helping states implement the work products that have already been developed appears to be a higher priority, especially in states with less EM&V experience.

For specific areas/work products within protocol development, the following recommendations are offered.

- **Net Savings Project** – Continue current research and information sharing, but do not pursue development of common guidelines, given feedback offered by various stakeholders that implementation of a regional approach to savings is unlikely.
- **Mid Atlantic TRM**– Continue work on this well-received product, updating measures as needed.
- **EM&V for Emerging Technologies** – Continue work on protocols to address evaluation for emerging technologies, since this is an area of interest in some states that are promoting ET.
- **Informing National Protocols** – Modify interaction with national protocols to focus on the two-way sharing of information between the Forum and national efforts, thereby allowing the Forum to provide concise summaries of current status and new developments to stakeholders. Because there is no consensus across states on supporting national protocol development efforts and there is always the concern that national efforts may falter, the Forum should not take on an advocacy role in promoting specific national protocols.
- **EM&V Methods** – There was no clear consensus for this aspect of Forum protocol development, with an overall recommendation to either Stop or Modify the development of regional EM&V methods. If continued, the emphasis should be changed to implementation, particularly identifying and overcoming the barriers that have kept these protocols from being implemented. Some respondents suggested that if protocol development is to continue, it may be appropriate to explore other possible applications of methods, such as nontraditional multi-fuel programs (e.g., low income) or advanced metering and smart grid technologies, where guidance may be needed both on how to evaluate these technologies and how to use them in evaluation.
- **Common Energy Efficiency Reporting** – While there was broad support for the online database that is being implemented, many stakeholders felt that the development of additional Reporting protocols should be suspended after the database is operational. Instead, a shift from protocol development to an information sharing focus is recommended. Note, however, that this is not necessarily consistent with Preface of the *Common Statewide EE Reporting Guidelines* adopted by the Steering Committee, which advised that the guidelines were a living document that could be updated in the future to improve or address further data needs.

3.2 Research and Evaluation

The overall recommendation for **Research and Evaluation** is that this activity should be continued and should be a primary focus for Forum funding. The load shape and persistence studies are useful to multiple states, and several respondents suggested future research on residential lighting and HVAC, codes/new construction and gas measures. One caveat is that

care should be taken to ensure enough state sample points to satisfy multiple regulators and system operators. Improved cost study tracking was also recommended, since over-runs appear to be typical.

3.3 Education and Information Access

While both the Forum website and its stream of information should definitely be continued, several modifications are recommended based on interview and survey results.

- For the Forum section of the NEEP **Website**, recommended modifications include improving access to forum draft materials; e.g., provide limited (i.e., read-only) access to material available to those not working directly on projects.
- Recommended modifications to **Forum Communications** involve helping to manage the sometimes excessive flow of emails that participants receive. One possibility is to develop an “interest list” that lets stakeholders receive mailings only on topics of interest. Another approach might be to send fewer, more targeted communications, including, for example, a monthly email of “what we sent this month” that would enable people to pick up items or information they missed the first time.

3.4 Operations

For Forum operations, several modifications are recommended.

- **Staffing** levels will need to be increased if the workload/budget expands, since existing staff and committee members are all stretched rather thin. Even if the Forum agenda were reduced somewhat to make the workload more manageable, staffing should be maintained at current levels to support the ongoing work.
- The Forum’s **Committee Structure** should be modified by streamlining the number and size of committees. One suggestion is to consider limiting the size of committees so they can operate more efficiently; creating specific “who should join” descriptions for individual committee would help ensure that members have interest and experience in the committee’s scope of work. When committee members find themselves unable to participate fully in the committee because of other commitments, it may make sense to encourage them to opt-out of product review processes early on rather than forcing the rest of the committee to wait for their input and causing deadlines to be missed. Finally, the Forum is encouraged to actively seek out System Operator participation for committees dealing with technical projects.
- Despite some concerns regarding fairness of the **Funding** allocation formula, this is basically well accepted and should be continued. In addition, the Forum is encouraged to continue reaching out to states that have dropped out and non-participating states, including potential “border states” like Ohio and Virginia.

- One **Funding** activity that could be started would be to identify individual champions for Forum participation at non-participating states and then support them with examples of Forum benefits and suggestions on how to structure and fund their state's participation in the Forum.

3.5 Strategic Planning

The fundamental recommendation for strategic planning is that the Forum should build on existing work in areas of greatest interest to stakeholders rather than launching entirely new initiatives. Specific examples of these high priority activities include: completion of the regional energy efficiency database; integration of energy efficiency into regional system planning and forward markets, and investigating new methods and approaches for energy efficiency cost-effectiveness analysis. The Forum should stay involved to a lesser extent in efforts to integrate EM&V for demand response and energy efficiency and to develop approaches for using advanced metering technologies in EM&V. In light of stakeholder priorities, the Forum should reduce its emphasis on informing protocols for national greenhouse gas initiatives, but should continue to monitor these and inform the Forum membership.



Appendix A: Recruitment Letter

Evaluation Recruitment Letter, Emailed May 31, 2011

Dear Regional EM&V Forum Stakeholder,

I am writing to let you know that you have been recommended as a candidate to be interviewed or surveyed as part of an evaluation study that Northeast Energy Efficiency Partnerships, Inc. (NEEP) is facilitating to inform development of the next 3-year strategic plan for the EM&V Forum. Specifically, your input will help NEEP to assess the EM&V Forum's activities and accomplishments to date, the extent to which it is meeting its value proposition to its members, and how the Forum might evolve in scope and function for the 2012-14 period. The project is being informed by guidance from a project subcommittee.

On behalf of Forum sponsors, NEEP has retained consultants from [Evergreen Economics](#), [PWP Inc.](#) and [Quantum Market Research \(QMR\)](#) to conduct stakeholder interviews and a web/phone survey. You will likely be contacted in the near future by one of the consultants' staff, by phone or email, and asked if you can complete a survey or participate in an interview for this evaluation. **Due to the tight project schedule, we are hoping to complete these tasks by mid-June, and your prompt participation is greatly appreciated.**

For reference, please find attached general background information about the Forum and its activities to date since its launch in 2009. This summary may be useful for your review prior to participating in the interview/survey.

Thank you in advance for your assistance in helping us with this important evaluation. If you have any questions about this project, please feel free to contact us.

Julie Michals

Director of the EM&V Forum

@neep.org - 781-860-9177 ext. 135

Elizabeth Titus

Senior Manager of the EM&V Forum

@neep.org - 781-860-9177 ext 111

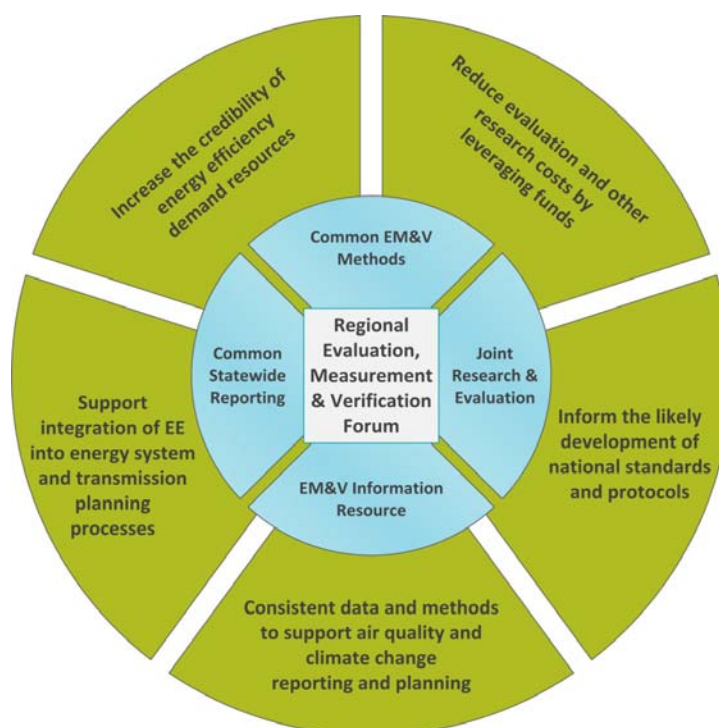
Appendix B: Forum Background for Potential Survey Respondents

This information was provided to potential survey respondents to provide relevant background on the Forum's goals and activities.

EM&V FORUM VALUE PROPOSITION

The Forum's main activities over the past three years, illustrated below, focused on: developing common statewide reporting and EM&V methods guidelines, conducting joint research and evaluation projects, and serving as an EM&V information resource through its Resource Library ([://neep.org/emv-forum/emv-library](http://neep.org/emv-forum/emv-library)). These efforts and associated products, when implemented and used by the states, are intended to lead to the Forum's desired outcomes:

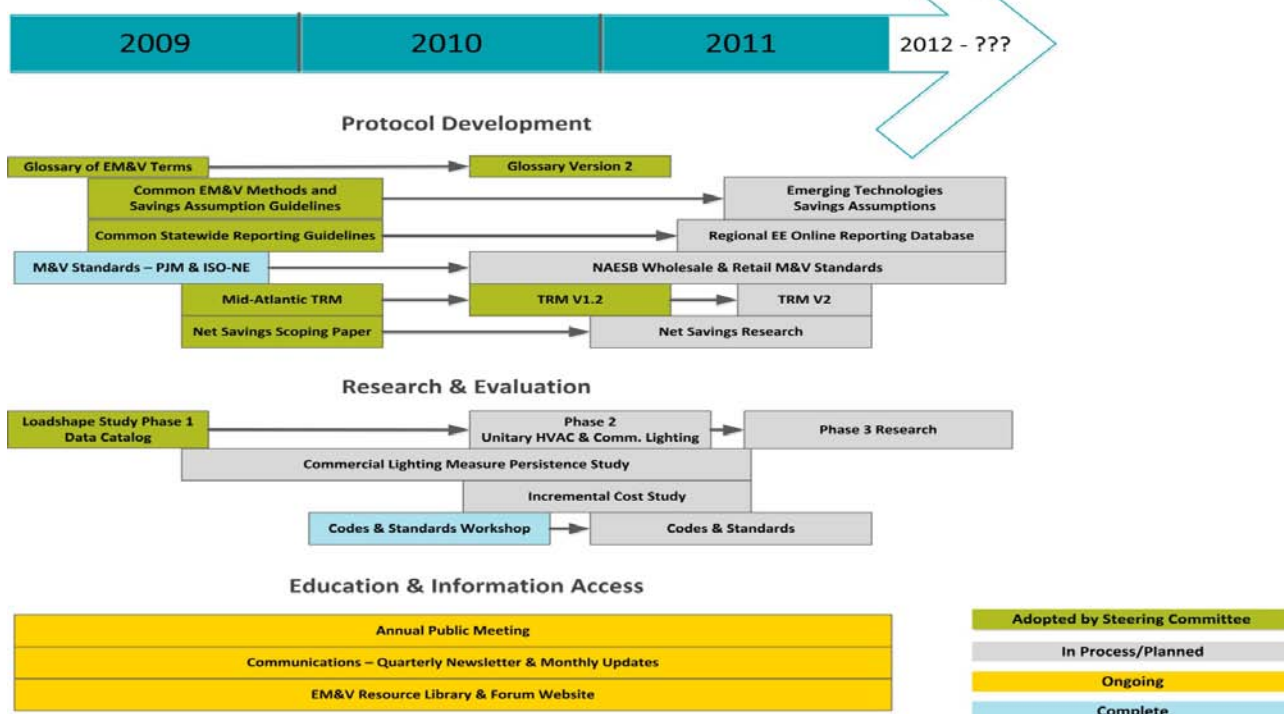
- Reduce evaluation and other research costs by leveraging funding
- Develop consistent data and methods to support air quality and climate change reporting and planning
- Support integration of energy efficiency (EE) into energy system and transmission planning processes
- Inform the likely development of national EM&V standards/protocols
- Increase the credibility of EE demand resources



The graphic below provides a timeline view of the Forum's completed, ongoing, and planned projects. Completed EM&V Forum products are available on the Forum's Products and Guidelines website at:

[://neep.org/emv-forum/forum-products-and-guidelines](http://neep.org/emv-forum/forum-products-and-guidelines).

Regional Evaluation, Measurement & Verification Forum
 Building credibility for energy efficiency as a resource in the region to serve multiple policies and markets, and inform national protocol efforts



FORUM PROJECT DESCRIPTIONS AND STATUS

2009 Forum Projects

Project A2: EM&V Methods Guidelines (Complete). This project developed EM&V methods guidelines for calculating electric and gas energy efficiency savings across the region and surveyed savings assumptions for priority measures to identify where greater consistency is needed or where differences are warranted due to variations in programs.

Project A3: Common Statewide Reporting Guidelines (Complete). These Guidelines include recommended state-level reporting templates and several process recommendations that provide for consistent definitions and the reporting of electric and natural gas energy-efficiency program energy and demand savings and associated costs, and their emission and job impacts across the region.

Project A4: PJM and ISO-NE M&V Manual Comments (Complete). This project informed the development of M&V standards in the context of the ISO New England and PJM Interconnection wholesale capacity markets, to ensure that protocols/standards are sufficiently rigorous and reasonable, based on best practice in the evaluation industry. **Inform NAESB National M&V Standards (In Progress):** Forum staff have been participating in both the retail and wholesale working groups to develop EE M&V standards/best practices.

Project A5: Mid-Atlantic Technical Reference Manual, Version 1 (Complete). This project developed a technical reference manual (TRM) for the Mid-Atlantic states with common savings assumptions, input parameters, and algorithms for priority end-use measures. The TRM supports calculations of energy efficiency savings for the purpose of planning and tracking against state goals, supporting PJM M&V Plans, and supporting environmental regulations.

Project B1: Unitary HVAC Loadshape Study (Final Draft Complete). This project developed a spreadsheet tool that allows the user to generate 8760 loadshapes that demonstrate the impact of Unitary HVAC energy efficiency programs in reducing energy use and associated emissions. The spreadsheet tool is accompanied by a report describing the project and results.

Project B2: Commercial Lighting Measure Persistence Study (Final Draft Complete). This project provides estimates of multi-year measure persistence based on on-site inspections of a sample of lighting measures installed by commercial and industrial lighting programs in the region.

Project B3.1: Net Savings Scoping Paper (Complete). This paper is intended to improve Forum members' understanding of how net energy savings is defined, how stakeholders use net savings, and the opportunities and barriers to increasing the consistency of and quality in net savings definitions and measurement in the region.

Project B3.2: Impact of EE Programs on Advancing Codes & Standards Workshop (Complete). This workshop, held on September 28, 2010 in Marlborough, MA, provided an opportunity for regulators, program administrators and other energy efficiency stakeholders in the Northeast and mid-Atlantic to interact and learn about ongoing codes and standards policies, programs and evaluation plans, with the goal of helping the region achieve more aggressive savings goals and claim benefits associated with building energy codes and appliance standards.

2010 Forum Projects

Project PD1: Methods for Estimating Net Savings (RFP to be issued June 2011). This project will develop definitions for adjusted gross savings and net savings, hold a series of webinars to share information with Forum stakeholders about recent net savings research and related developments, and catalog policies related to net savings throughout the region. A follow on task may include determining whether to proceed with future net savings research, including the possible development of net savings guidelines in 2012.

Project PD5: Mid-Atlantic Technical Reference Manual, Version 2 (Final Draft Complete). This project will add approximately 20 gas and electric measures to the Version 1 Mid-Atlantic TRM (see project A5 above).

Project RE1/RE5: Incremental Cost Assumptions (To be completed June 2011). This project will provide estimates of incremental costs for several priority residential and commercial/industrial gas and electric measures. The incremental cost assumptions will be informed by both secondary and primary research.

Project RE2: Commercial Lighting Loadshape Study (Final Draft Complete). This project developed a spreadsheet tool that allows the user to generate 8760 loadshapes that demonstrate the impact of Commercial Lighting energy efficiency programs in reducing energy use and associated emissions. The spreadsheet tool is accompanied by a report describing the project and results.

2011 Forum Projects

Project PD11-1: Savings Assumptions & Methods Guidelines for Emerging Technologies (RFP to be issued June 2011). This project will add a second set of priority measures/program types to the Forum



EM&V Methods & Savings Assumptions Guidelines adopted in May 2010, by recommending EM&V methods and savings algorithms and assumptions to estimate initial gross savings for a set of emerging technologies/program designs.

Project PD11-3: Reporting Tool and Online EE Database (*RFP to be issued June 2011*). This project will support the implementation of the Common Statewide Reporting Guidelines (see project A3 above) by developing an online tool that will allow states to readily use the Guidelines' reporting tables and providing supporting technical assistance for use of the online tool.

Project PD11-5: Mid-Atlantic Technical Reference Manual, Version 1.2 (*Complete*). This project updated the Version 1 TRM (see project A5 above) based on a critical review by stakeholders.

Project RE11-1: Loadshape Study Phase 3 (*RFP to be issued July 2011*). This project will expand on the Forum loadshape research that was conducted as part of the 2009-2010 projects. It will involve primary research, including metering, throughout the region on a measure or set of measures. Data will be analyzed and 8760 loadshapes and coincidence factors will be provided as a result.

Project RE11-2: Codes and Standards Research (*Contingent on US DOE funding*). This project will support sponsors/states interested in attributing and claiming savings associated with energy efficiency program activities directed at improving codes and standards and compliance. This project will serve as a next step after the September 28, 2010 workshop on this subject (see project B3.2 above).

Project RE11-3: Add-on Research (*TBD*). This project provides additional funding to support possible project expansions for existing Forum research studies e.g., adding additional priority measures for incremental cost, measure persistence, or other research, as identified and approved by Forum participants during the year.

Forum Evaluation: Report with recommendations for 2012-2014 (*In Progress*). This independent evaluation of the Forum is being conducted, per the Forum 3-Year Plan, to assess the Forum's performance and continued role and scope going forward beyond 2011.

FORUM OPERATIONS & MANAGEMENT (BASE COSTS)

Forum Base Costs include a range of Forum operational, management and education, information and communications activities, and are funded through Forum Base costs. Annual activities include:

1. Facilitating Forum Steering Committee, Project Committees, and subcommittees;
2. Managing third-party contracts and projects;
3. Updating and maintaining EM&V library of studies/research and other EM&V resources;
4. Maintaining and improving EM&V Forum website;
5. Holding Forum Annual Public Meeting;
6. Conducting Forum communications and outreach to Forum participants through monthly updates and quarterly newsletters;
7. Monitoring and participating in state, regional (ISO-NE, PJM), and national M&V meetings/efforts (NAPEE, NAESB M&V projects);
8. Conducting outreach to states to support state adoption of Forum products approved by Steering Committee (e.g., presentations, attend state evaluation meetings, public comments);
9. Assisting with coordinating/facilitating state PUC, PA and air regulatory efforts regarding access to energy efficiency data to support air quality and climate change planning;
10. Maintaining Forum operational policies, including ensuring access to Forum materials and protecting confidential information; and
11. Planning and developing annual Forum agendas and budgets with outreach to Forum participants, grant funders, and other stakeholders

Appendix C: Evaluation Interview Guide

FINAL June 6, 2011

Introduction, Purpose of Interview and Overall Involvement

Hello. My name is _____. I am calling from Evergreen Economics and I am conducting interviews on behalf of the Northeast Energy Efficiency Partnerships, or NEEP, to help evaluate the Regional EM&V Forum in accordance with the Forum's 2009-2011 Three-Year Plan. The purpose of the evaluation is to assess and document the Forum's activities and accomplishments to date, the extent to which it is meeting its value proposition, and to inform strategic planning for the Forum in the future.

Your responses will remain confidential. We will only report responses in the aggregate – either across all respondents or like categories of respondents (e.g., based on geography or Forum activity level.)

You were sent a copy of this interview guide and background information to review in advance of this discussion. Have you had a chance to review it?

YES. Thank you again for participating in this important study.

NO. We would like to conduct an interview at your convenience. Can you please tell me when it will be convenient for you to review the interview guide and background materials so we can discuss the topics presented?

Introduction

1. What is your job title and role at your organization? What is the main reason your organization is involved with NEEP and the EM&V Forum? Are other staff at your organization involved with the Forum? If yes, describe their role and participation in the Forum to date.
2. Now, moving on to the list of topics, let's start with your involvement with the EM&V Forum. Could you describe you current or past involvement with the Forum?

Forum Value Proposition

Let's start by discussing the EM&V Forum Value proposition and overall goals described in the Summary that was sent to you by Julie Michals via email on May 31. As noted in that description, the overarching goal of the Forum is to build credibility for energy efficiency as a resource over the long-term in the region to serve multiple policies and markets, and to inform **national** protocol development.

3. How successful do you think the Forum has been in supporting state, regional and national EM&V needs? Would you say very, somewhat, not very or not at all successful? How does that differ for state, regional and national needs? How can the Forum be more successful?
4. How successful has the Forum been in building the credibility of efficiency as a resource to date? What are your expectations that the Forum can support this goal over the longer term (e.g., given the time it takes for states to adopt and implement consistent EM&V protocols and reporting practices to support integration of energy

efficiency with air quality and regional system planning.) Would you say very, somewhat, not very or not at all successful? Why do you say that? How can the Forum be more successful?

5. How successful has the Forum been in supporting integration of EE into energy system and transmission planning processes? Would you say very, somewhat, not very or not at all successful? Why do you say that? How could the Forum have been more successful?
6. Can you provide examples of how Forum projects are being used and/or referenced in states, regionally and nationally?

Finally, one of the goals of the Forum is to provide monetary savings to participants by leveraging resources to fund projects. Recognizing that several key research projects are just wrapping up:

7. To what extent do you think the forum is meeting this goal? (Probe to see if adequate progress occurring)
8. Are there any additional activities that should be started to meet the Forum's goals?

Protocol Development

Now that we have discussed the big picture, I'd like to ask you about specific Forum focus areas.

Let's start with protocol development, which includes developing common energy efficiency definitions, EM&V methods guidelines, and reporting formats.

9. Would you consider yourself very active, somewhat active, or not very active in Forum committees and research efforts relating to protocol development?
 - a. Very active
 - b. Somewhat active
 - c. Not very active

Why do you say that? (Can you briefly give me some examples of your involvement?)

Next let's discuss some specific Forum protocol development activities, which have addressed a number of issues described in the Forum Summary you received. If you are not familiar with a specific topic, we can skip to the next one.

10. **Protocols for EM&V methods:** Examples of these projects include:

- o Glossary of **Terms** and Acronyms to help establish common EM&V language
- o Common/consistent **EM&V methods** or approaches for conducting impact evaluations (for priority measures and emerging program designs)
- o Scoping the interest and need for common definitions for and approaches to estimating **Net Savings**
- o **Building Codes & Standards** Workshop to inform and share information regarding approaches to estimating the impact of EE programs on advancing Codes & Standards

- a) How important do you consider this aspect of protocol development? Would you say very, somewhat, not very or not at all important? Why do you say that?
- b) How successful has the Forum been in developing these protocols? Would you say very, somewhat, not very or not at all successful? Why do you say that? How could the Forum have been more successful?
- c) To what extent have you or your colleagues used these protocols to date?
 - 1) Often used them
 - 2) Sometimes used them
 - 3) Used them very little
 - 4) Did not use them at all

Can you give specific examples?
- d) To what extent do you plan to use them in the future?
 - 1) Often
 - 2) Sometimes
 - 3) Very little
 - 4) Not at all

In what ways do you plan to use them?
- e) Do you think this aspect of protocol development should be continued, stopped or modified?
 - 1) Continued
 - 2) Stopped
 - 3) Modified
- f) Why do you say that?
- g) If modified, why and in what ways?

11. Energy and demand savings assumptions and algorithms, particularly for priority measures and emerging technologies – Examples of these projects include:

- o 2010 *Regional EM&V Methods and Savings Assumptions Guidelines*
- o 2010-11 Mid Atlantic Technical Reference Manual (a sub-region project)
- o 2011 Emerging Technologies project (in progress)

- a) How important do you consider this aspect of protocol development? Would you say very, somewhat, not very or not at all important? Why do you say that?
- b) How successful has the Forum been in developing these protocols? Would you say very, somewhat, not very or not at all successful? Why do you say that? How could the Forum have been more successful?
- c) To what extent have you or your colleagues used these protocols to date?
 - 1) Often used them
 - 2) Sometimes used them
 - 3) Used them very little
 - 4) Did not use them at all

Can you give specific examples?
- d) To what extent do you plan to use them in the future?
 - 5) Often
 - 6) Sometimes
 - 7) Very little
 - 8) Not at all

In what ways?
- e) Do you think this aspect of protocol development should be continued, stopped or modified?
 - 1) Continued
 - 2) Stopped
 - 3) Modified

- f) Why do you say that?
- g) If modified, why and in what ways?

12. Common statewide reporting for savings data and associated cost, avoided emissions and economic impacts.

- a) How important do you consider this aspect of protocol development? Would you say very, somewhat, not very or not at all important? Why do you say that?
- b) How successful has the Forum been in developing these protocols? Would you say very, somewhat, not very or not at all successful? Why do you say that? How could the Forum do to be more successful in developing reporting formats?
- c) Understanding the Steering Committee adopted the reporting guidelines in December 2010, with anticipated implementation in early 2012, to what extent do you plan to use them in the future?
 - 1) Often
 - 2) Sometimes
 - 3) Very little
 - 4) Not at all
 In what ways?
- d) Do you think this aspect of protocol development should be continued, stopped or modified?
 - 1) Continued
 - 2) Stopped
 - 3) Modified
- e) Why do you say that?
- f) If modified, why and in what ways?

13. Informing other regional and national EM&V protocols/manuals. These include:

- Wholesale capacity market M&V manuals (ISO New England, PJM);
 - National EM&V protocol development efforts at the North America Energy Standards Board (NAESB) and by US DOE/EPA (State Energy Efficiency Action Network)
- a) How important do you consider this aspect of protocol development? Would you say very, somewhat, not very or not at all important? Why do you say that?
 - b) How successful has the Forum been in developing these protocols? Would you say very, somewhat, not very or not at all successful? Why do you say that? How could the Forum be more successful in informing other regional and national EM&V protocols and manuals?
 - c) To what extent have you or your colleagues used these protocols to date?
 - 1) Often used them
 - 2) Sometimes used them
 - 3) Used them very little
 - 4) Did not use them at all
 Can you give specific examples?
 - d) To what extent do you plan to use them in the future?
 - 1) Often
 - 2) Sometimes
 - 3) Very little
 - 4) Not at all
 In what ways?
 - e) Do you think this aspect of protocol development should be continued, stopped or modified?
 - 1) Continued
 - 2) Stopped

- 3) Modified
- f) Why do you say that?
- g) If modified, why and in what ways?

14. Are there any aspects of protocol development that are not being addressed that should be? If so, what are they, and why should they be added to the Forum's scope?

Research and Evaluation

A second area of focus for the Forum is Research & Evaluation, which includes coordinated research and evaluation projects to inform savings estimates calculations for energy efficiency impacts for regulatory and market needs, as well as to provide input to protocol development (e.g. common assumptions).

Projects with this focus have addressed the following issues:

- Development of load shapes for unitary HVAC and commercial lighting measures promoted by efficiency programs (and spreadsheet tool to estimate coincidence factors for user-defined periods and making the metering data available for other research purposes);
- Estimation of persistence and effective useful life of commercial lighting measures (a sub-regional project);
- Incremental Cost Study (to develop estimates for priority electric and gas measures).

15. Would you consider yourself very active, somewhat active, or not very active in Forum committees and research efforts relating to Research and Evaluation?

- a. Very active
- b. Somewhat active
- c. Not very active

Why do you say that?

16. How important do you consider Research and Evaluation projects overall to the Forum's mission? Would you say very, somewhat, not very, or not at all important? Why do you say that?

17. Are you familiar with the three research projects currently being completed?

- d. Yes
- e. No

18. Do you think these projects represent an appropriate allocation of Forum resources?

19. Why or why not?

20. Any concerns or comments regarding specific projects?

21. To what extent do you or your colleagues plan to use the results of these studies?

- a. Often
- b. Sometimes
- c. Very little
- d. Not at all

In what ways?

22. Do you think the Forum's research activities should be continued, stopped or modified?

- a. Continued
- b. Stopped

- c. Modified
- Why do you say that?
If modified, why and in what ways?

23. What do you see as the greatest Research and Evaluation needs that are not addressed now and should be addressed by the Forum going forward?

Education and Information Access

The third Forum focus area is Education and Information Access to ensure that Forum products and study results are visible and readily accessible to stakeholders. Activities in this area include the repository of evaluation studies and state/regional/national EM&V information on the Forum website, the Forum Annual Public Meeting, dedicated webinars on state evaluation activities and topics, and on-going communications via monthly Forum updates and quarterly newsletters.

24. Would you consider yourself very active, somewhat active, or not very active in Forum committees and activities related to Education and Information access?

- e. Very Active
- f. Somewhat active
- g. Not very active

25. How important do you consider Education and Information Access to the Forum's overall mission?

- h. Very important
- i. Somewhat important
- j. Not very important
- k. Not at all important

26. Do you think the Forum's Education and Information Access activities, or some aspect of them, should be continued, stopped or modified?

- l. Continued
- m. Stopped
- n. Modified

Why do you say that?

If modified, why and in what ways?

27. How often do you use the Forum's website? Would you say frequently, occasionally, rarely or not at all?

28. How do you most often use the website (i.e., what do you look for)? Do you find that the website meets your needs? How should it be changed?

29. Have you attended one or more of the Forum's Annual Public Meetings? If so, do you find them valuable and informative?

30. What do you see as the greatest Education and Information Access needs that are not addressed now and should be addressed by the Forum going forward? How can these activities be improved?

Effectiveness of Forum Operations

Next, I'd like to ask about the effectiveness of the Forum's **organizational structure, budget/revenue plan, and operations**.

31. How familiar are you with the Forum's **budget and operations**?

- a. Very familiar
- b. Somewhat familiar
- c. Not very familiar

IF NOT VERY FAMILIAR, SKIP TO STRATEGIC PLANNING SECTION

Let's discuss the Forum's **organizational structure**.

32. Overall, do you think the Forum's structure is effective to helping the Forum achieve its goals? Why or why not?

33. Specifically, how do you view the effectiveness of:

- o. The **committee structure** (Steering Committee, Project Committees, subcommittees)?
 - i. Very effective
 - ii. Somewhat effective
 - iii. Not very effective
 - iv. Why do you say that?
- p. The **geographic representation** of various regions (northeast, mid-Atlantic, other)?
 - i. Very effective
 - ii. Somewhat effective
 - iii. Not very effective
 - iv. Why do you say that?
- q. **Stakeholder representation** (PUC and air regulatory staff, PA, ISO/RTO, etc.)?
 - i. Very effective
 - ii. Somewhat effective
 - iii. Not very effective
 - iv. Why do you say that?
- r. Do you think any of the above should be modified? If so, how and why?

34. The **cost and revenue framework** –

- s. Do you like the budget planning process?
- t. Is it effective in developing a budget?
- u. Do you feel that your organization has adequate input to the budget planning process?
- v. Do you think the Forum's **cost allocation framework across states** is fair (Costs allocated based on blended MWH/MMBTU retail sales factor, with 7% min on Base Costs)?
- w. Do you have any suggestions on how the cost allocation framework should be changed?
- x. Similarly for the **revenue structure**, do you think it is fair (where about 87% of Forum costs are funded by states, with 12% funded by US DOE/EPA)?
- y. And do you think it is effective? Why or why not?
- z. Do you have any suggestions for how the revenue structure could be changed?

35. Thinking about the **administration and operation** of the Forums, how effectively does the Forum facilitate Forum committee calls, webinars and meetings? (Probe on volume of communications, focus of meetings) Anything that you think should be changed?

36. What concerns, if any, do you have regarding the **management** of Forum projects?

37. And do you see Forum **procedures** as clear and transparent? What procedures would you want to see changed or modified?
38. Any other comments on the Forum's **administration and operation**?

Strategic Planning

Finally, we'd like to get your feedback on how emerging trends or policies could affect the Forum. Having thought about the Forum's Value Proposition and activities to date, please think about how the Forum might deal with some specific issues. If you have the interview guide in front of you, please take a look at the list of issues under question 38. If not, let me read them to you.

39. Which of the following example issues, and associated Forum role, do you think the Forum should address beyond 2011? How should it address each issue?
- National GHG regulations to be issued by US EPA - Informing national EM&V protocol development to support forthcoming regulations
 - Develop common regional guidance for more comprehensive integration of EE into regional system planning, building on current developments in ISO New England and NY ISO
 - Develop guidance for integrating EM&V for demand response with energy efficiency
 - Smart grid and AMI capabilities to support EM&V practices - Develop regional guidance for incorporating emerging technologies to support EM&V practices, and/or inform national protocol development in this area
 - Provide access to consistently reported energy efficiency data and conduct supporting analyses/benchmarking at the state and regional level, building on 2011 project that will develop a regional EE database
 - Energy efficiency cost-effectiveness requirements – assess the need for and propose new methods and approaches for cost-effectiveness analyses
40. Which of those issues would you consider most important for the Forum to address? Why? And which would you consider least important? Again, why?
41. Are there any other pending changes in policy or trends in EM&V that the Forum should address, and if so, what do you suggest would be the Forum's role in addressing the issue?

Other Suggestions and Recommendations

Those are all the specific topics I wanted to cover.

42. Are there any other issues you would like to discuss or changes you would recommend regarding Forum activities, organization and priorities?

Thank you very much for your time. NEEP appreciates and values your input and will use the information you have provided to inform its planning and management of the Forum for the future.

Appendix D: Evaluation Stakeholder Web/Phone Survey

FINAL June 10, 2011

NOTE: Intro below is for web-based option.

Thank you for agreeing to participate in NEEP's evaluation of the Regional Evaluation, Measurement and Verification (EM&V) Forum. Your input will help NEEP to assess the Forum's activities and accomplishments to date, the extent to which it is meeting its value proposition to members, and to inform the development of the next 3-year strategic plan. All of your responses will be recorded confidentially, and will be reported only in summary format. We estimate that this survey will take 15 to 20 minutes to complete.

Please note that we are contacting a wide range of stakeholders with varying levels of experience and involvement with the Forum. Please feel free to respond, "don't know" to any questions that you do not feel qualified to address.

Q 1. First, for survey tracking purposes only, please provide your first and last name?

Record FNAME

Record LNAME

Q 2. Please indicate which state or states you represent in your interactions with the Forum:

- a) Connecticut
- b) Massachusetts
- c) Maryland
- d) Washington D.C.
- e) Delaware
- f) New Hampshire
- g) Rhode Island
- h) New York
- i) Maine
- j) Vermont
- k) Connecticut/Massachusetts
- l) Maryland/Washington D.C.
- m) Massachusetts/New Hampshire/New York/ Rhode Island
- n) New England
- o) Mid-Atlantic
- p) Other

I. Forum Awareness and Importance

Q 3. First, how would you describe your participation in the Forum, based on your interactions with other Forum stakeholders and tracking of Forum activities and products?

- 1) Very active
- 2) Somewhat active
- 3) Not very active
- 88) Refused (*NOTE: FOR ALL QUESTIONS, THIS OPTION ONLY USED FOR PHONE SURVEY*)
- 99) Don't know

Q 4. [If Q 3 = NOT VERY ACTIVE] Why have you not been very active in the EM&V Forum? Check all that apply.

- 1) Am new to my organization/role

- 2) My role does not require frequent participation
- 3) Others in my organization are active
- 4) Am too busy
- 5) Calls/meetings are at inconvenient times
- 6) Participation benefits are not worth time demands
- 7) My organization's input is considered too little
- 8) Other, Specify
- 88) Refused
- 99) Don't know

As you may know, the Forum is responsible for developing evaluation and reporting protocols, conducting research studies, and providing stakeholder education and information.

Q 5. Please indicate how important the following Forum products are to your organization:

- a) **Common protocols to guide EM&V studies (e.g., required methods, precision/accuracy guidelines)**
- b) **Common energy/demand savings assumptions, including stipulated values for common measures, input assumptions (e.g., measure life), and coincidence factors**
- c) **Common reporting formats for savings data and associated cost and emission reductions**
- d) **Coordinated research and evaluation projects, to serve as basis for protocol development (e.g., common assumptions)**
- e) **Studies, reports, recommendations, references and other technical information to support Forum stakeholders**

Responses choices for each above:

- 1) Very important
- 2) Somewhat important
- 3) Not very important
- 4) Not at all important
- 88) Refused
- 99) Don't know

In the past two years, the Forum has completed a range of projects.

Note: Use A-D below for next questions:

- a) **Glossary of Terms and Acronyms**
- b) **Regional EM&V Methods and Savings Assumptions Guidelines**
- c) **Common Statewide Energy Efficiency Reporting Guidelines**
- d) **Mid-Atlantic Technical Reference Manual**

Q 6. Have you reviewed the _____?

- 1) Yes
- 2) No
- 3) Not applicable
- 88) Refused
- 99) Don't know

Q 7. (If Q 6 = YES) In your opinion, what is quality of the _____?

- 1) Very good
- 2) Good
- 3) Fair
- 4) Poor
- 88) Refused

99) Don't know

Q 8. How much does your agency utilize the _____?

- 1) Use often
- 2) Use sometimes
- 3) Use very little
- 4) Don't use at all
- 88) Refused
- 99) Don't know

Q 9. [If Q 8 = Very Little or Not at ALL] Why is that?

- 1) Not relevant to my organization/job
- 2) Measures not relevant to my utility
- 3) Incomplete measures
- 4) Not relevant to my state
- 5) Guidelines are impractical
- 6) Do not need to reference often
- 7) Have not needed to use yet
- 8) Other, Specify
- 88) Refused
- 99) Don't know

The Forum is nearing completion on four studies. These are the:

- a) Commercial lighting loadshape study
- b) Unitary HVAC loadshape study
- c) Commercial lighting measure persistence study
- d) Incremental measure cost study

Q 10. How much do you expect your agency to utilize the _____:

- 1) Will use often
- 2) Will use sometimes
- 3) Will use very little
- 4) Will use not at all
- 88) Refused
- 99) Don't know

Q 11. [If Q 10 = Very Little or Not at ALL] Why is that? Check all that apply.

- 1) Not relevant to my organization/job
- 2) Measures not relevant to my utility
- 3) Incomplete measures
- 4) Study was not well designed
- 5) Will not need to reference often
- 6) Other, Specify
- 88) Refused
- 99) Don't know

Q 12. How often do you access the Forum section on NEEP's website?

- 1) Daily
- 2) Weekly
- 3) Bi-weekly
- 4) Monthly
- 5) Quarterly

- 6) Very rarely
- 7) Never (**GO TO Q 17**)
- 88) Refused (**GO TO Q 17**)
- 99) Don't know (**GO TO Q 17**)

Q 13. What information are you looking for? Check all that apply.

- 1) Protocols
- 2) Specific study results
- 3) Projects status
- 4) Committee membership
- 5) Upcoming meetings/events
- 6) Meetings minutes
- 7) Miscellaneous technical information/support
- 8) Other, Specify:
- 88) Refused
- 99) Don't know

Q 14. Are you able to find the information you need?

- 1) Always
- 2) Mostly
- 3) Sometimes
- 4) Never
- 88) Refused
- 99) Don't know

Q 15. How would you rate the usefulness of the Forum section of the website?

- 1) Very useful
- 2) Somewhat useful
- 3) Not very useful
- 4) Not at all useful
- 88) Refused
- 99) Don't know

Q 16. Do you have any recommendations for improving the Forum section of NEEP's website?

- 1) Yes (Specify - Try to post code)
- 2) No
- 88) Refused
- 99) Don't know

II. Forum Effectiveness (Goals, Objectives and Value Proposition)

Q 17. Please assess how effective the Forum has been in conducting each of its core functions:

- a) Common EM&V and Reporting Protocols**
- b) Research and Evaluation Projects**
- c) Education and Information Activities**

Responses choices for above:

- 1) Very effective
- 2) Somewhat effective
- 3) Not very effective
- 4) Not at all effective
- 5) Too early to determine

- 88) Refused
- 99) Don't know

Q 18. For each core function, please indicate if it should be Stopped, Continued, or Modified (or Don't Know):

Q 19. [For each A - C = Stopped] Why do you say that? - Try to postcode

Q 20. [For each A - C = Modified] How should this function be modified? - Try to postcode

Q 21. Should the Forum adopt any new core functions, and/or expand its scope beyond electric and gas energy efficiency?

- 1) Yes (Specify - Try to post code)
- 2) No
- 88) Refused
- 99) Don't know

Q 22. Are there any new research studies that you would like the Forum to conduct?

- 1) Yes (Specify - Try to post code)
- 2) No
- 88) Refused
- 99) Don't know

Q 23. To what extent has the Forum's joint research and evaluation projects approach saved your organization money?

- 1) High savings
- 2) Some savings
- 3) Low savings
- 4) No savings
- 5) Does not apply
- 88) Refused
- 99) Don't know

Q 24. How effective have the Forum's activities been in helping address the integration of energy efficiency with air quality planning?

- 1) Very effective
- 2) Somewhat effective
- 3) Not very effective
- 4) Not at all effective
- 88) Refused
- 99) Don't know

Q 25. How effective have the Forum's activities been in helping address the integration of energy efficiency with system planning?

- 1) Very effective
- 2) Somewhat effective
- 3) Not very effective
- 4) Not at all effective
- 5) Does not apply
- 88) Refused
- 99) Don't know

Q 26. How effective have the Forum's activities been in helping to enhance EM&V practices in your state?

- 1) Very effective
- 2) Somewhat effective
- 3) Not very effective
- 4) Not at all effective
- 88) Refused
- 99) Don't know

Q 27. At the regional level?

- 1) Very effective
- 2) Somewhat effective
- 3) Not very effective
- 4) Not at all effective
- 88) Refused
- 99) Don't know

Q 28. And at the national level?

- 1) Very effective
- 2) Somewhat effective
- 3) Not very effective
- 4) Not at all effective
- 88) Refused
- 99) Don't know

III. Forum Organization, Budget and Operations

Q 29. Currently, Forum participants are organized into a variety of functions, including an overall Steering Committee, and multiple Project Committees and Subcommittees.

In general, how effective has this organizational structure been in helping the Forum to meet its key objectives (protocol development, conduct studies, provide information)?

- 1) Very effective
- 2) Somewhat effective
- 3) Not very effective
- 4) Not at all effective
- 88) Refused
- 99) Don't know

Q 30. (If Q 29 = Not Very or Not At All) Why do you say that? – TRY TO POSTCODE

Q 31. (If Q 29 = Not Very or Not At All) What would make the Forum structure more effective going forward? – TRY TO POSTCODE

Q 32. Have you participated on the Forum Steering Committee, or a Project Committee or Subcommittee?

- 1) Yes
- 2) No
- 88) Refused
- 99) Don't know

Q 33. (If Q 32 = YES) Would you say the time commitment expected of you is:

- 1) Too much
- 2) About right

- 3) Not enough to get the job done
- 88) Refused
- 99) Don't know

Q 34. Please rate the project management for any of the following projects you have been highly involved with:

- a) Glossary of Terms and Acronyms
- b) Regional EM&V Methods and Savings Assumptions Guidelines
- c) Common Statewide Energy Efficiency Reporting Guidelines
- d) Net Savings Scoping Study
- e) Impact of EE Programs on Buildings Codes & Standards Workshop
- f) Mid-Atlantic Technical Reference Manual
- g) Commercial lighting loadshape study
- h) Unitary HVAC loadshape study
- i) Commercial lighting measure persistence study
- j) Incremental measure cost study

Response choices for above:

- 1) Very effective
- 2) Somewhat effective
- 3) Not very effective
- 4) Not at all effective
- 5) Not involved in project/study
- 88) Refused

Q 35. How would you describe the representation of your state in the Forum's activities? Would you say it is?

- 1) Too high
- 2) About right
- 3) Too low
- 4) Does not apply
- 88) Refused
- 99) Don't know

Q 36. For each of the following stakeholder groups, please indicate if the Forum has too much representation, too little representation, or the right amount of representation (or Don't Know):

- a) Utility evaluation staff
- b) Utility program implementation staff
- c) Environmental agency staff (e.g., air quality)
- d) Utility regulators
- e) State energy offices
- f) Consumer Advocates
- g) Energy system operators
- h) Other?

Q 37. Are you familiar with the methods used to allocate Forum costs across the participating states?

- 1) Yes
- 2) No
- 88) Refused
- 99) Don't know

Q 38. (If Q 37 = YES) How equitable do you think these funding methods are?

- 1) Very equitable
- 2) Somewhat equitable
- 3) Not very equitable
- 4) Not at all equitable
- 88) Refused
- 99) Don't know

Q 39. Do you think your organization is getting fair value in return for its financial contributions?

- 1) Yes
- 2) No
- 3) Does not apply
- 88) Refused
- 99) Don't know

Q 40. (IF Q 39 = YES OR NO) Why do you say that? - TRY TO POSTCODE

Q 41. Which of the following best describes the amount of Forum communications with its stakeholders for project updates and policy discussions (e.g., meetings, calls, webinars)?

- 1) Too much communications
- 2) About right
- 3) Not enough communication
- 88) Refused
- 99) Don't know

Q 42. Overall, how would you rate the effectiveness of Forum communications (e.g., focus, clarity, clearly defined next steps)?

- 1) Very effective
- 2) Somewhat effective
- 3) Not very effective
- 4) Not at all effective
- 88) Refused
- 99) Don't know

IV. Emerging and Anticipated Issues

We'd like to get your feedback on how emerging trends or policies could affect the Forum.

Q 43. For each of the following example issues and potential Forum roles, please indicate if the Forum's involvement should be a high, medium or low priority for the period 2012-14: (or Don't Know)

- a) **National greenhouse gas (GHG) regulations to be promulgated by US EPA** – inform national EM&V protocol development to support forthcoming regulations
- b) **Energy efficiency in system planning** – develop common regional guidance for more comprehensive integration of energy efficiency, building on current developments by ISO New England and NY ISO
- c) **EM&V for demand response** – develop common guidance for integrating EM&V approaches for demand response with energy efficiency
- d) **EM&V applications of Smart Grid and AMI** – develop regional guidance for incorporating emerging technologies to support EM&V practices, and/or inform national protocol development in this area
- e) **Availability and use of credible EE data for benchmarking and analysis** - build on 2011 project that builds a regional EE database by increasing access to consistently reported energy efficiency data and

conduct supporting analyses/benchmarking at the state and regional level

- f) **Energy efficiency cost-effectiveness requirements** – assess the need for and propose new methods and approaches for cost-effectiveness analyses

Q 44. Are there any other pending changes in policy or trends in EM&V that the Forum should address in the 2012 – 2014 plan?

- 1) Yes
- 2) No
- 88) Refused
- 99) Don't know

Q 45. (If Q 44 = YES) Please describe the policy or EM&V topic that should be addressed?

Record NEW TOPIC

Q 46. (If Q 44 = YES) Please describe the best role of the Forum to address this topic?

Record FORUM ROLE

Q 47. Do you expect to continue to participate in the EM&E Forum going forward?

- 1) Yes
- 2) No
- 88) Refused
- 99) Don't know

Q 48. (IF Q 47 = YES or NO) Why do you say that? – TRY TO POSTCODE

V. Conclusion

Q 49. What should be the top objective(s) for the EM&V Forum going forward?

Record TOP OBJECTIVES – TRY TO POSTCODE

Q 50. [IF Q 49 NOT NULL] Would that require any changes in the Forum structure, staffing or communications?

- 1) Yes
- 2) No
- 88) Refused
- 99) Don't know

Q 51. (If Q 50 = YES) Please explain what changes would be needed?

Record OBJECTIVES CHANGES – TRY TO POSTCODE

Q 52. Do you have any other comments you wish to provide regarding the Forum's scope, specific activities, organizational structure or funding?

Those are all the questions we have for you. Thank you very much for your time and good information.

Appendix E: Topline Survey Results

See attached PDF