

H. Evaluation and Monitoring

1. *Introduction*

This section proposes a framework for evaluation and monitoring for the three-year plan period, 2010-2012. The section begins with the text of the *EEAC Resolution On Evaluation, Measurement, and Verification* approved on September 8, 2009 (“EM&V Resolution”). Based on the principles of the EM&V Resolution, the Program Administrators and the Council have delineated specific research areas, based primarily on target markets. The section then provides an overview of the types of evaluation and monitoring strategies that are utilized by the Program Administrators, followed by a discussion of high-level evaluation budget levels. Finally, there is a discussion of the Program Administrators’ transition strategy, as well as a detailed section on specific evaluation and monitoring priorities and activities planned for each of the research areas.

2. *EM&V Resolution*

On September 8, 2009, the Council approved its EM&V Resolution, which is quoted in full below:

The Energy Efficiency Advisory Council recognizes that the deployment of the energy efficiency programs by the electric and gas Program Administrators (“PAs”), in support of the mandates of the Green Communities Act, is expected to produce energy savings and related benefits to the Commonwealth that involve the expenditures of unprecedented levels of customer and public monies. It is therefore critical that the programs be evaluated, measured, and verified in a way that provides confidence to the public at large that the savings are real and in a way that enables the Program Administrators to report those savings to the Department of Public Utilities with full confidence. There is a need to ensure both the reality and the perception of the independence and objectivity of EM&V activities, as well as the need to help ensure consistency, timeliness, and credibility of the results.

The Council also recognizes that the evolution of more uniform statewide programs necessarily leads to greater use of statewide evaluation studies as well as other organizing principles.

Accordingly, the Council adopts the following principles and policies -- divided into the topics of policy /authority and implementation -- regarding the evaluation, measurement, and verification of energy efficiency programs:

POLICY/AUTHORITY

Decision Making:

- The EEAC will assume an oversight role over the EM&V activities of the Program Administrators to ensure the objectivity and independence of those activities, and the perception of such, and to help ensure consistency, timeliness, and credibility. While PAs and EEAC Consultants (acting on behalf of the EEAC) will continue to work diligently to reach a consensus on evaluation issues, where there are areas of difference that may arise that cannot be resolved through consensus during the on-going interactive process between the EEAC Consultant and the PA evaluation staff, authority for decision-making will reside with the EEAC or its Designee.
- **Appeals:** To enable the Program Administrators to fulfill their responsibility to report program savings to the DPU with full confidence, an appeals process shall be established, through which the PAs may bring decisions made by the Council or its Designee for review and resolution. This process will be implemented through the formation of a standing evaluation committee (“Standing Committee”) of the Council, whose responsibility in this area will be to hear the matter under dispute and rule so that the study may proceed in a timely way. In general, it is expected that this review process will be completed within 72 hours once an issue is elevated to the Standing Committee.
- **Resolution of Disputes:** This Standing Committee will consist of three voting members of the Council, including DOER. Consistent with general Council proceedings, the Standing Committee will include and consult with, in both deliberations and decision-making, a representative of both the PAs and the EEAC consultant team, neither of whom shall have a vote in the standing committee. The Committee will review the issues related to the disputed matter, hear from the PA evaluation staff and EEAC Evaluation Consultant (the “principals”), and make a determination on the outcome of the matter. The decision will be recorded, along with a description of the applicable issues. The participants in the appeal will sign the record of the decision, indicating their acceptance of, the representation of the issues and of the decision. In exceptional cases, where the PAs perceive there to be significant risk to their ability to manage the energy efficiency programs in the near term, the PAs will note their disagreement with the decision of the Standing Committee on the record of the decision and reserve the right to immediately petition the DPU on the Standing Committee’s decision. The PAs shall be able to submit any such documents to the DPU in conjunction with the filing

of the Energy Efficiency Plans and Annual Reports. The DPU will be able to review the record of this decision in its review of Plans and Annual Reports.

IMPLEMENTATION

- **A. Statewide Focus:** Impact evaluations, and other studies, should be performed at a statewide rather than an individual Program Administrator level to the maximum extent possible, while enabling to the extent necessary results at the Program Administrator level. It is recognized that circumstances could occur where a service territory specific or non-statewide evaluation or study would be appropriate. Such EM&V activities should only be undertaken following an assessment of the need and value of a non-statewide study and agreement between the PA evaluation staff and EEAC Evaluation Consultant.
- **B. Research Areas:** The range of evaluation activities should be divided into 5 to 7 semi-permanent statewide research areas, each oriented primarily to specific target markets (e.g., residential retrofit, large C&I), each with a long-term research and contract manager from the PAs, an independent evaluation contractor to conduct the studies under a long-term contract, and the EEAC Evaluation Consultant. The PAs and the EEAC Evaluation Consultant shall jointly prepare a statewide research management plan to carry this out. The EEAC Evaluation Consultant shall have the opportunity to comment on the proposed assignments of the PA research area managers. The EEAC will have the authority to remove assigned research area managers if they do not perform effectively in accordance with pre-established objective standards for research area managers. Those standards will be developed jointly by the EEAC Consultant and the PAs.
- **C. Evaluation Planning:** The research area managers and EEAC Evaluation Consultant will jointly prepare a proposed statewide evaluation plan and illustrative budget and submit it to the EEAC for approval¹. We expect that this plan will be reviewed and updated annually. Consideration will be given to regional EM&V activities and FCM requirements, and will be responsive to DPU directives about EM&V in the development of the evaluation plan.
- **D. Coordination of Studies:** All studies² in which Massachusetts PAs participate should be included in the statewide evaluation plan for the

¹ The PAs and the EEAC recognize that the DPU has the ultimate authority to review and approve each PA's energy efficiency plan, including the PA's evaluation plan and budget.

² Some Massachusetts PAs are multi-jurisdiction utilities and may propose expanding some Massachusetts studies to include those other jurisdictions, where appropriate. If mutually agreed-to by the research area manager and the EEAC Consultant, these cross-jurisdictional efforts will proceed.

purposes of coordination of evaluation and promotion of consistent methods, and conducted by the research area independent evaluation contractors. Some studies, however, may be excluded from the statewide research area contracts. The EEAC Consultant and PAs will develop guidelines for assessing which studies may be excluded from the statewide research contracts and will apply them as necessary to identify mutually agreed upon studies that will be conducted outside of the statewide evaluation contracts. Research area managers, the PAs, and the EEAC Consultant should make every effort over time to determine if these studies may be included in research area contracts. Under the circumstances where a study is not included in a research area contract, the appropriate research area manager shall manage the study and represent Massachusetts statewide evaluation interests in the execution of the study. The EEAC Evaluation Consultant may participate in regional evaluation projects directly, upon the direction of the EEAC.

- **E. Integration:** Electric and gas evaluation efforts should be fully integrated to the maximum extent possible. Each of the statewide research areas should cover both electric and gas evaluation efforts.
- **F. Contracting:** The Program Administrators will be the main mechanism for contracting with the independent evaluation contractors.
- **G. Implementation:** As is current practice, statewide evaluation studies will be coordinated by staff from Program Administrators, with a lead from one of them (the “Study Manager”), and an EEAC Evaluation Consultant. This will enable Program Administrators and the EEAC to collaboratively provide their expertise in the planning, scoping, management, review of methods and draft protocols, and review, acceptance, and application of results of the individual studies. In many cases the Study Manager and the statewide research area manager will be the same individual. The Study Manager shall manage study efforts so that the approved evaluation study budgets are not exceeded³. The EEAC Evaluation Consultant should have the authority to recommend to the EEAC removal of the assigned Study Manager if they do not perform effectively in accordance with pre-established objective standards for Study Managers. Those standards will be developed jointly by the EEAC Consultant and the PAs.
- **H. Communication and Documentation:** The Study Manager will communicate regularly with the EEAC Evaluation Consultant about issues related to study execution. The Study Manager will document decisions made in the course of a study, for potential review by the EEAC, DOER, the DPU, and/or any other party.

³ At times, the scope of an evaluation study is modified for good reasons. The Study Manager and the EEAC Consultant agree to review proposed changes in scope with the Standing Committee when the change in scope is likely to lead to an increase in study cost of more than 10% or to adversely affect the study timeline.

We expect and encourage the PAs to perform the evaluation roles assigned to them in this framework in an effective and timely way.

We recognize that there are details that remain to be worked out under this framework and that the framework may evolve over time. We encourage the EEAC Consultant and PAs to continue discussions on these topics to establish an effective process that leads to high quality and useful evaluation results, mindful of the need to maintain public confidence in the overall conduct of these programs. The process, roles and responsibilities should be reviewed and modified, as necessary, after twelve months first, and bi-annually thereafter.

3. *Descriptions of Research Areas*

Guided by and consistent with the EM&V Resolution, the Program Administrators worked collaboratively with the Consultants to develop six market research areas. They are organized primarily by target markets, which should help to maximize the statewide effectiveness of EM&V while presenting minimal overlap among areas. The research areas identified are as follows:

- **Residential Retrofit and Low Income.** This category would include residential cooling and heating equipment, residential heating and water heating, residential and low income retrofit 1-4 (MassSAVE) including weatherization, and residential and low-income retrofit (and new construction) multi-family programs.
- **Residential Retail Products.** This includes residential lighting and appliance programs.
- **Residential New Construction.** This includes residential and low income new construction and major renovations programs.
- **Non-Residential Large Retrofit and New Construction.** This includes C&I new construction (small and large) and major renovations, as well as large C&I retrofit programs.
- **Non-Residential Small Retrofit.** This includes the current C&I small retrofit, direct install programs. This category would also include future programs that may target small non-residential customers.
- **Special and Cross-Sector Studies.** This research area reflects the fact that not all studies will fall into the five market categories above, and some studies may be cross-sector in nature. Some types of studies could include: cross-sector free ridership and

spillover studies; non-energy benefits; behavioral programs; community-based pilots; and marketing, public education, and outreach activities.

4. *Transition Plan*

Under the new Evaluation Framework, the Program Administrators must transition their current individual evaluation efforts to the new approach as soon as is possible. Some research areas, such as Residential New Construction, are already being evaluated on a statewide basis. In other research areas, specific needed studies, such as a comprehensive market assessment of the commercial and industrial market, have not been conducted before; these studies should be ready to launch under the new framework as soon as RFPs can be drafted.

The first step in the transition is to develop a detailed evaluation plan to be reviewed by the Council. The goal is to communicate expected evaluation projects and studies in each of the research areas for review and approval by the Council sometime before the end of the year. The plans will cover all types of evaluation (as described in Section 6) for each sector.

The Program Administrators intend to initiate evaluation efforts as soon as possible, while acknowledging that there are some short-term transitional challenges involved in moving to the new framework. Those challenges include:

- *Proper attention to 2009 program evaluation.* Program Administrators are committed to moving forward to the new 2010-2012 framework as soon as possible but have a continuing obligation to conduct the necessary studies to evaluate the 2009 programs. Program Administrators must be allowed to initiate and complete studies that are necessary to document savings for their 2009 Annual Reports. While they will be performed under the oversight/management structure contemplated by the EM&V Resolution, these studies (a) may not be statewide in scope, and (b) must be initiated before statewide evaluation contracts are in place.
- *Working with individual Program Administrators' procurement departments.* The new framework requires large multi-year umbrella RFPs which cover all studies in a given research area on a much larger scale than employed before.

Some RFPs may involve \$5M-\$10M of work over a three year period. Because it is not possible to provide detailed scopes of work for each study in a given research area ahead of time, the RFPs will be relatively open-ended, serving more as a request for qualifications (RFQ), with specified contractors and subcontractors providing rates and availability over a specified time period. Once contracts are signed, specific scopes of work not included in the RFQs will be developed on a time and materials basis. Because this type of large contract is new to the procurement staff and will involve more negotiation for the first year or so until all the details are ironed out, it may add to the length of time needed to develop and implement the new statewide framework. If development of the umbrella RFPs appears to be leading to excessive delays in the implementation of needed studies, the Program Administrators may develop and release more targeted, short-term RFPs covering high-priority projects. Any such targeted RFPs would be statewide in scope, performed under the new administrative framework, and administered by the appropriate Research Area Manager.

- *Lags in implementation changes.* Although this statewide plan requires increased coordination between Program Administrators and between gas and electric offerings, these efforts will take time to fully implement. Evaluating some areas before certain implementation changes have even begun may be difficult. For example, conducting a process evaluation of an integrated process or approach prior to the implementation of full integration would be problematic. However, market assessment activities or impact studies conducted before programs are fully integrated would be more feasible.
- *Coordinating with current and recently completed evaluation efforts.* Some programs or end-uses have not been evaluated in a number of years and are ready to be rolled into the new framework immediately. Others have been evaluated regularly and, in some cases, major evaluations were just kicked off by individual Program Administrators. Commercial lighting load shapes is an example of this synchronization challenge, with some Program Administrators having recently completed evaluations, others currently in the middle of large evaluation studies, and others ready to move forward with a new study as soon as possible. In such situations, it may take a year or more for the Program Administrators to coordinate their study schedules. It is more desirable to delay a study to get the schedule in sync than to use finite evaluation resources to launch and manage a statewide study to replace recent vintage studies.
- *Differences in program tracking systems.* In order for evaluation results to be used, they must feed back into tracking systems. Differences in tracking systems can impact development of common sampling methodologies for studies and applicability of results. Because large investments have been made to develop individual PA tracking systems, the systems cannot be merged and differences will persist. In some cases, particularly for C&I projects, Program Administrators will have to navigate these differences before studies can begin.

- *Long-standing differences in evaluation methodologies and approaches.* A careful examination must be conducted as to how each Program Administrator has done evaluations in the past, selecting the most effective methodologies and combining them into one unified approach. A prime example of this is how large and small C&I custom projects are evaluated relative to similar prescriptive measures. Some Program Administrators may have itemized and studied specific custom end-uses, where others may have combined prescriptive and custom end-uses and evaluated a large retrofit program, for example, as a whole. These differences in approach will need to be reviewed and worked out to determine the best approach.
- *Staffing issues.* Some Program Administrators will need to hire additional staff to manage the increased emphasis on EM&V. The market for experienced evaluation project managers is extremely tight and it will take time to hire and train additional staff to manage these large complex research area RFPs.
- *Boundary Issues.* Planned studies must be coordinated with those being conducted by Program Administrators in other states, as well as studies being performed regionally under the NEEP EM&V Forum. In such situations, the objectives of the EM&V Resolution should be balanced with the interests of other jurisdictions that may have authority over the same study. It is in the interest of all parties to resolve these issues and achieve economy of effort, rather than unnecessarily duplicating studies.

5. *Evaluation budgets*

By agreement with the Consultants, the Program Administrators allocated 4% of total program budgets for evaluation and market research in each year of the three-year plan.⁴ As program budgets increase, so will the evaluation budget.

6. *Types of evaluation functions*

EM&V refers to the systematic collection and analysis of information to document the impacts of energy efficiency programs and improve the effectiveness of these programs. EM&V includes the following types of studies:

⁴ Agreement was made based on Consultant approximating 2010 total budget of approximately \$225 million, thus resulting in an evaluation budget statewide of approximately \$9 million.

- *Measurement and Verification* refers to the measurement of gross savings achieved in individual buildings.
- *Impact Evaluation* refers to the measurement of net or gross savings achieved within overall program populations.
- *Market Evaluation* refers to the measurement of the effects that programs have on the structure and functioning of their target markets.
- *Process Evaluation* refers to the systematic assessment of programs for the purpose of documenting their operations and developing recommendations to improve their effectiveness.
- *Market Characterization or Assessment* refers to the systematic assessment of energy efficiency markets for the purpose of improving the effectiveness of programs targeting those markets.
- *Evaluation of Pilots* refers to EM&V activities intended to assess the effectiveness of pilot programs, determine their potential for full-scale implementation, and develop recommendations for any changes in program approach. Under the new framework, evaluation of pilots will occur under the research area most closely related to the market being targeted.

7. *Specific Evaluation and Monitoring Activities for 2010-2012*

As noted above, the Program Administrators have worked with the Consultants to define statewide evaluation and research areas and specific evaluation needs for 2010-2012. Listed below are brief outlines of the highlights of possible studies for each research area.

Residential Retrofit and Low Income

In early 2010, the PAs will issue a Request for Proposals for an Evaluation Contractor for the residential retrofit and low income programs. This research covers a wide range of areas, including retrofit 1-4, as well as all multi-family, both retrofit and new construction. It also includes residential cooling & heating equipment (HVAC), and residential heating and water heating.

One outstanding issue that needs further discussion and resolution during 2010 pertains to the role of evaluation in the QAQC process with regard to residential retrofit programs. However, listed below are agreed upon priority areas of research for each of the retrofit programs:

Residential Retrofit 1-4 (MassSAVE) Programs

- During 2010, the group will evaluate and determine whether or not a full impact evaluation on the MassSAVE program makes sense, or if concentrating on research and documentation of updated costs and savings values for the measures offered through this program, including new measures, is of more value.
- Process evaluation focusing on the statewide marketing effort, the new vendor delivery structure, including a review of the statewide vendor software, as well as other adjustments to the program that have occurred over the past few years;
- During the second part of the 3-year plan, process evaluation focused on gas/electric integration efforts;
- Evaluation of Deep Energy Retrofit pilot(s) including a process-type evaluation, as well as a focus on the barriers and/or drivers to customer acceptance;
- Evaluation of other pilots, such as Marshfield Energy Challenge, Cambridge Energy Alliance, and/or Energy Smack-Down.

Low Income Retrofit Programs

- Develop a research strategy through collaboration with the low income advocates. Likely areas of research include both a process and an impact evaluation of the low income programs.

Multi-family Programs

- Study to determine the potential in the multifamily retrofit sector;
- Process evaluation, including effectiveness of statewide marketing efforts, role of Market Integrator approach, process flow, and all aspects of the program re-design, including low income and gas/electric integration;

- Assessment of the adoption rate for eligible measures to determine if incentive levels need adjustment or if there are other strategies that PAs can utilize to potentially achieve greater savings.

HVAC Programs

- Impact evaluation of the Brushless Fan Motor pilot;
- Systematic review of HVAC of EM&V conducted both in MA, as well as other New England states in order to develop a research plan.

Residential Heating and Water Heating

- Process and impact evaluations of both the residential heating and water heating programs are kicking off in late 2009 and will continue into 2010;
- Evaluation of the Heat Pump Water Heater pilot.

Residential Retail Products

In early 2010, the Program Administrators will issue an RFP for an Evaluation Contractor for the residential retail products category, which includes the Residential Lighting and Residential Appliance programs.

Recent evaluation results highlight the urgency of EM&V activities in this research area. The residential lighting market has been evolving very quickly, and has also been affected by the recession. In the face of these changes, early evaluation results suggest that the 2008 program may have had a limited impact on the market. As a result, there are ongoing discussions about changes to the program for 2010.

Given the size and potential of this market, this research area has several priority areas that require analyses:

- A new net-to-gross impact study, potentially including a CFL saturation study to get more recent data;
- A study to develop and verify applicable net-to-gross methods for specialty and hard-to-reach bulbs;

- A process evaluation to assess changes and re-design efforts made to the lighting program;
- Research on various market characteristics, such as pricing, retailer stocking, and promotional practices;
- Market research on appliance categories, such as consumer electronics (rapidly moving market) or pool pumps (potentially large demand characteristics).

Residential New Construction

In early 2010, the Program Administrators will issue an RFP for an Evaluation Contractor for the Residential New Construction Program. As has been done over the last seven years, the selected evaluation contractor will be responsible for conducting and managing all evaluation activities for the program.

In 2010, the two main evaluation activities slated for completion are a new baseline study of residential new construction practices and an Annual Progress Report. Although baseline studies tend to be costly and time consuming, they are an important measurement of where typical market practices currently stand and how the program is influencing the market, and serve as an appropriate measure on which to base savings associated with the program. In evaluation planning discussions, the Evaluation Committee for the Joint Management Committee (JMC) had determined that, due to the cost of baseline studies and the time required for construction practices to change, an appropriate time interval between baseline studies would be approximately five years. A baseline study for this program was last conducted in 2005.

Currently, the JMC Evaluation Committee is considering incorporating more detailed diagnostic measurements, measure code compliance, baseline information for heating and cooling equipment, and appliances into the baseline study. The specifics of how and to what

extent these items will be included will be determined once an evaluation contractor has been selected.

An Annual Progress Report, which has been conducted each year since 2002, summarizes program activity over the past year. Program performance information detailed in the report includes historical as well as current information to show the growth of the program over time.

In addition to these two studies, other areas that will need evaluation efforts are Codes and Standards and Major Renovation. The Codes and Standards work will involve how the program can better influence upgrading codes and take credit for the resulting savings. The Major Renovation effort will involve integrating major renovation into the program. The specific timing and amount of evaluation work associated with these tasks will be determined once the initiatives are better defined.

Other selected evaluation activities may be undertaken as the need arises. Evaluation activities for 2011 and 2012 will be developed once an Evaluation Contractor has been selected and hired and will likely focus on impact and process evaluations to capture the effects of recent program changes.

Non-Residential Large Retrofit and New Construction

In early 2010, the Program Administrators will issue an RFP for an Evaluation Contractor for the Non-Residential Large Retrofit and New Construction programs. For the past decade or more, each Program Administrator has conducted most of its evaluation in this area independently, with oversight by the Massachusetts DPU and various non-utility party consultants. The new framework will require the Program Administrators to develop a comprehensive research plan, taking into account the transition challenges discussed above.

The first step in that plan is to gain a better understanding of the commercial and industrial market for energy efficiency products and services. This includes collecting data on the efficiency of existing and new baseline efficiency equipment, overall building shell characteristics and operation and maintenance practices, the quantity and characteristics of new construction activity, and the number, characteristics, and business practices of various types of vendors.

At the same time, the Program Administrators need to conduct a wide variety of studies to help estimate program savings and inform planning estimates. At this point, the following studies are the top priorities for 2010:

- End-use metering for large commercial retrofit lighting program for those Program Administrators whose data is older than three years. This effort will be coordinated through the EM&V Forum to maximize its use through the region by combining it with other existing data.
- An impact evaluation of non-prescriptive HVAC installations. Previous evaluation efforts for some Program Administrators have combined less complex measures such as unitary HVAC replacements with large comprehensive cooling system upgrades. This impact evaluation will provide more detailed feedback to program implementation and planning, as well as effectively documenting savings.
- A process and impact evaluation of comprehensive multi-measure new construction and major renovation projects. Previous evaluation efforts for some Program Administrators have combined this type of project with less complex measures. This type of installation involves the highest level of technical support and a separate evaluation of this effort is warranted. As an add-on, this effort could also include an evaluation of the Advanced Building Program, a less intensive comprehensive design offering for smaller buildings. This effort will provide more detail to feed back into program implementation and planning, and will effectively document savings. Through the EM&V Forum, a study of the load shape of unitary HVAC measures will be conducted. Savings from this measure category, which is offered by all Program Administrators, are relatively small; however, the last study was conducted over ten years ago. Because the

costs associated with this type of study are prohibitive for an individual Program Administrator, it is an ideal candidate for a joint study through the EM&V forum.

- Gas prescriptive high efficiency heating and water heating equipment impact evaluation. An impact evaluation of this larger commercial and industrial gas rebate program has not previously been performed, so an appropriate methodology will need to be developed.
- Gas custom measure impact evaluation. An impact evaluation of non-prescriptive gas measures such as boiler controls and building shell measures. This measure category has not been evaluated. Part of the effort will be to select an appropriate methodology for an impact evaluation.
- An impact evaluation of prescriptive variable speed drives. Savings from this high potential measure category has not been systematically evaluated for a number of years due to the high cost relative to the savings. This situation is an ideal scenario for a joint study to assess how well this measure is performing when delivered in a simplified prescriptive manner.

Non-Residential Small Retrofit

In early 2010, the Program Administrators will issue an RFP for an Evaluation Contractor for the non-residential small retrofit area. The delivery mechanisms (direct install), size of projects, and incentive amounts for this program category (on the electric side) have become increasingly similar over the past five years, and in late 2007/2008, the electric Program Administrators worked together on a joint impact evaluation using billing analyses. The new framework will require the Program Administrators to develop a more comprehensive approach, incorporating small retrofit gas opportunities as well.

This program category tends to consist largely of lighting (approximately 85-90% for the current program), and also tends not to involve as much volatility in impact factors as some of the other research areas, with relatively minimal free ridership and spillover (as compared to the larger programs). With this in mind, priorities for research in the non-residential small retrofit area include:

- A lighting-only metering impact study focusing on load shape data, not energy savings; which have been recently studied through billing analysis;
- A market review and research on other non-lighting measures, including gas end uses, to see if there is merit in undertaking additional impact studies;
- A process evaluation, probably in late 2010 or in 2011. This evaluation could focus in areas such as: on gas/electric integration approaches, examination of alternative incentive levels, on-bill financing and repayment, and comprehensiveness of savings.

It is also assumed that the small retrofit area will be part of the larger C&I market characterization and market research analysis.

Special and Cross-Sector Studies

In early 2010, the Program Administrators will issue a Request for Proposals for an Evaluation Contractor for Special and Cross-Sector Studies. Given the diversity of topics, it may be necessary to issue more than one RFP, perhaps several months apart, to acquire contractors with expertise in diverse areas. Such studies will include:

- Cross-cutting free rider and spillover studies
- Behavioral programs
- Community-based pilots (geographically targeted programs)
- Non-energy benefits (low-income, residential, and business)
- Umbrella marketing efforts
- Input into regional long-run avoided costs.

Eventually, such studies might be expanded further to include equipment and building standards, commercial & residential plug loads and emissions reduction analyses, and other potential cross-sector programs or issues. However, studies are not likely to be rolled out in all

these areas in 2010. In 2010, the Program Administrators expect to conduct the following studies:

- Free ridership and spillover study focusing on C&I customers and possibly some residential programs;
- Behavioral programs evaluation, starting with National Grid's OPower pilot, but spreading in later years to other Program Administrators' programs;
- Non-energy benefits applicable to low-income and several other programs;
- Evaluation of community-based pilots, starting with NSTAR and NGRID's Chinatown pilot;
- Long run avoided cost study, which should start up later in 2010.