NYSERDA ENVIRONMEMTAL MONITORING, EVALUATION AND PROTECTION (EMEP) PROGRAM

FINAL Process Evaluation Plan

July 16, 2009

I. Introduction

The detailed evaluation plan presented in this document builds upon prior evaluation activities conducted for the Environmental Monitoring, Evaluation and Protection (EMEP) Program. In developing this evaluation plan, NYSERDA has incorporated feedback provided by the Department of Public Service (DPS), and has worked closely with its team of independent evaluation contractors to select the most appropriate evaluation approaches based on the current design of the program. This plan was developed to conform to the DPS evaluation guidelines released on August 7th, 2008 and to provide the highest level of rigor possible within the available resources.

As the EMEP Program works to meet its current SBC program goals, NYSERDA and its evaluation contractors will closely monitor aspects of that process in order to adapt this plan, as needed, to provide the most relevant and useful evaluation. For example, adjustments may be needed to sample sizes or research issues if assumptions about the program do not develop as initially anticipated. As such, NYSERDA views this plan as a flexible, living document that will be updated, as necessary, with appropriate notice to DPS and other interested parties.

This evaluation plan provides a formative process evaluation study to help improve the efficiency and effectiveness of the EMEP Program supported by SBC funding. Impact and market evaluation is not planned for the EMEP Program at this time.

II. Summary of Goals, Cost and Schedule for Evaluation Activities

The overarching goals of NYSERDA's **New York Energy $mart**SM program evaluation efforts are to conduct credible and transparent evaluations, and provide NYSERDA program staff and managers, the New York State Public Service Commission (PSC), DPS staff, and other stakeholders with timely and unbiased information regarding program implementation.

NYSERDA's EMEP Program seeks to fund scientific investigations of environmental issues and provide the results of those studies to policy makers to inform their decision making. The staff of EMEP would like to understand how to enhance the effectiveness of their outreach efforts. Specifically, they would like to better understand how the various research results, studies, summaries and other documents produced by program contractors are used by policy makers, and which materials are most effective in terms of cost to develop and usefulness. The process evaluation will be conducted in 2009.

The EMEP Program evaluation budget for activities included in this plan totals $86,000, and includes $25,000 for survey implementation and $10,000 for data collection through interviews. This budget is approximately 0.6% of the total program budget of $14.6 million in unspent SBC3 funds as of May 31, 2009.[1]

[1] This evaluation budget includes only external contractor costs. Other overarching evaluation costs, including NYSERDA's internal evaluation management and statewide study costs, are additional; however, the total evaluation costs will not exceed 5% of program funding at the portfolio level.

III. Program Description

The EMEP Program commenced in the late 1990s in an effort to increase understanding of the environmental impacts of electricity production. EMEP initiatives are building on past efforts and evolving to support research in five primary areas:

- Ecosystem response to deposition of sulfur, nitrogen, and mercury, including continued support of the Adirondack Lakes Water Quality monitoring program with the Adirondack Lakes Survey Corporation and the NYS Department of Environmental Conservation.

- Health and energy-related research on air quality, particulate matter, ozone, and co-pollutants to support continued development of sound air quality management plans for attainment of new ozone and fine particle standards.

- Regional climate change research, including impacts of climate change on New York, and mitigation and adaptation options for the State.

- Environmental impacts of alternative energy resources, including effects of wind turbines and tidal-energy production on wildlife.

- Crosscutting environmental science, technology, and policy projects, such as mitigating environmental impacts of electricity generation critical for fuel diversity.

The program is guided by a steering committee comprised of major stakeholder groups. In addition a separate science advisory committee continues to provide technical review. The program has maintained a robust science and policy communication component to deliver program findings to policy-makers, scientists, and the public. As with previous efforts, NYSERDA is collaborating with regional and national entities to leverage funds for pertinent research projects.

The 5-year SBC3 program budget (including both spent and unspent funds) is $21.3 million.

IV. Process Evaluation Plan

This section presents the 2009 process evaluation plan for the EMEP Program. As noted earlier, this evaluation will help provide information to EMEP Program staff to help enhance the effectiveness of their outreach efforts. Specifically, this research will help NYSERDA program staff to better understand how the various research results, studies, summaries and other documents produced by program participants are used by policy makers, and which materials are most effective in terms of cost to develop and usefulness.

Research Objectives

The anticipated research objectives for the 2009 EMEP Program process evaluation are listed below. In order for the process evaluation to provide the greatest value, other relevant or necessary objectives may be added, or objectives listed below may change somewhat, as the start date of this research draws closer.

1. Assess the effectiveness of the products produced by EMEP
    a. Which products are used by policy makers?
    b. Which products are used by researchers?
    c. What type of products would be more useful or used?
    d. How does each group rank the different products for usefulness?

2. Assess how effective EMEP is in reaching its target market of policy makers and researchers
    a. Does the target market know about the EMEP?
    b. Does the target market know about EMEP products?
    c. Does the target market find that EMEP products are useful/effective for their policy activities?
    d. Which EMEP products are most useful/effective according to the target market?
3. Assess what other organizations are influencing the target market
    a. What organizations are familiar to the target market and are considered effective?
    b. What products provided by other organizations are considered used and useful by the target market?
    c. What are the approaches of these other organizations in developing information and providing resources to the target market?
4. Assess cost effectiveness of different products
    a. What is the cost of production for each product
    b. What is the distribution pattern of each product
    c. Qualitatively how used and useful is the product relative to the cost of production

Activities

The first task will be to develop lists of the target market with whom EMEP has engaged: researchers, the science advisory group, utilities, New York State and Federal agencies/departments, policy makers and legislators on pertinent committees, and environmental groups. The EMEP conference invitation and attendee lists, as well as lists maintained by EMEP staff will be used to develop the master list. In addition, the Process Evaluation Team will work with EMEP staff to identify each of the products produced by EMEP and develop cost estimates for each product type. This list will be used in the interviews and surveys with stakeholders and will also be used for a quick bibliographic search to determine the degree to which these products are being cited in other research papers.

The Process Evaluation Team will develop interview and surveys instruments for research with the target market groups. Questions will focus on the different products (*e.g.*, final reports, project summaries, case studies) to obtain the target markets' assessment of each product. The Process Evaluation Team will conduct interviews with key contacts as well as develop a survey for implementation by the Survey Team for the larger target groups. Data collection will begin in late-Summer 2009 and a report will be prepared in early 2010.

Populations/Samples

The populations cannot be determined with certainty until the lists have been compiled. Previous research conducted by Bard Center for Environmental Policy interviewed a small sample of 35 EMEP stakeholders. The intention in this study is to expand to the full target market for the program, including lists used to distribute requests for proposals as well as EMEP materials. Table 1 shows the assumptions for populations and samples.

Data Collection

Interviews and surveys will be conducted once lists of the target market are generated. The data collection will begin with interviews of NYSERDA EMEP staff to obtain their perceptions of the market response to their products. Interviews will also be conducted with the researchers for the EMEP projects, science advisory group members, utility contacts and State and Federal Department/Agency contacts that work most closely with EMEP. A survey will be developed for the broader audience of policy makers, legislative contacts and environmental groups. The survey will be fielded by NYSERDA's Survey Contractor. Data collection will begin in Fall 2009 and is expected to be completed by February 2010.

Table 1. EMEP Process Evaluation Survey Specifics

Target Group	Estimated Population Size	Estimated Sample Size	Expected Sampling Precision	Administration By	Expected Start of Fielding
NYSERDA EMEP staff	5	3	NA	Process Team	Summer 2009
Science Advisory Group	19	10	NA	Process Team	Fall 2009
Researchers	70	20	NA	Process Team	Fall 2009
State and Federal Department/Agency Contacts	40	20	NA	Process Team	Fall 2009
Utility Contacts	7	7	NA	Process Team	Fall 2009
Policy makers & Legislative contacts	100	40	90/10a	Survey Team	Fall 2009
Environmental Groups	100	40	90/10a	Survey Team	Fall 2009

a. Assumes data are proportional, 2-tailed distribution, finite population correction, absolute precision.

Special Issues

The Impact Evaluation Team is conducting an evaluation of completed R&D projects. The Process and Impact teams will coordinate to reduce the burden on any contacts that might be involved in both studies.

V. NYSERDA Evaluation Process

This evaluation plan is an early, but important step in NYSERDA's evaluation planning and implementation process. It is NYSERDA's understanding that DPS Staff wish to be involved as a reviewer/participant in the following parts of the evaluation process: detailed evaluation plans, project kick-off meetings, workplans (including sampling, statistics and modeling issues), data collection instruments, interim results reports (as applicable), presentation of evaluation results, and draft evaluation reports. NYSERDA will conduct evaluation planning and implementation in an open and transparent manner, and will invite DPS Staff participation in the designated aspects of the process and any others upon DPS' request.[2] Should DPS Staff choose to modify the level or manner of their involvement, NYSERDA should be notified about the change(s). DPS Staff should also choose when and how to involve their evaluation advisor consultant team in NYSERDA's evaluation processes, should directly provide any materials and information necessary for their advisor consultant team to fulfill this role, and should notify NYSERDA about the type and level of advisor consultant involvement.

An important goal of NYSERDA's evaluation effort is to provide early feedback to program staff to help inform and improve program implementation. NYSERDA accomplishes this goal in several ways:

1. Ongoing communications between the NYSERDA evaluation staff and evaluation contractors to identify issues that need to be brought to the attention of NYSERDA program staff, DPS Staff, and other involved parties.

2. Interim results reports may be generated, sometimes at the request of NYSERDA program staff and sometimes by initiative of NYSERDA's evaluation team and contractors, where early results are required or deemed useful prior to completion of the full evaluation effort.

[2] In order to maintain transparency, and allow for confirmation checking and follow-up analysis, evaluation data will be maintained by NYSERDA and made available to DPS on an as-needed basis. NYSERDA will continue to maintain its secure "data warehouse" which includes data files, code books, and analysis files which can be made available in electronic form to DPS upon request. In order to provide a comprehensive record of each study conducted, the data warehouse also holds copies of final evaluation reports and appendices, including blank survey instruments, although these documents will be made available to DPS and publicly upon completion of each evaluation project.

3. Presentations of draft evaluation results held with NYSERDA evaluation contractors, evaluation team, program staff, and DPS Staff before evaluation reports are written provide feedback on the programs as soon as possible, and provide evaluation contractors with additional perspective and context that will be useful in reporting final recommendations.

Upon completion of final evaluation reports, the NYSERDA evaluation team will also provide support and assistance to program staff with regard to implementation of recommendations and program improvements.

VI. Reporting

Final reports will align with requirements set forth in the DPS evaluation guidelines, and will include: methodology, key results, recommendations, summary and conclusions, and appendices with detailed documentation.

Upon completion of each major evaluation study effort, findings and results will be communicated by NYSERDA's evaluation contractors and evaluation staff to NYSERDA program staff. Actionable recommendations and information on program progress toward goals will be provided as input to the program design and improvement process. NYSERDA's evaluation staff will follow up regularly with program staff on recommendations arising from the evaluation and the status of their consideration or adoption of these recommendations.

NYSERDA's evaluation staff will prepare quarterly and annual reports to the Public Service Commission, DPS and the EAG summarizing the results on all programs and from all evaluation studies occurring in the most recent quarter or year. The latest evaluated program savings, realization rates, and net-to-gross ratios will be used in compiling data for these overarching reports. Quarterly reports will be provided to the Commission within 60 days of the end of each calendar quarter. The annual report will substitute for the fourth quarterly report, summarizing program and portfolio progress throughout the calendar year. The annual report will be submitted to the Commission within 90 days of the end of the calendar year.