CON EDISON

Multifamily Energy Efficiency Program Implementation Plan

Consolidated Edison Company of New York, Inc.

Case Nos. 08-E-1127 & 09-G-0363

[10/1/2012]

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Energy Efficiency Portfolio Programs

Multifamily Energy Efficiency Program Implementation Plan
September 2012

I. Introduction

In response to the Public Service Commission's ("Commission") Order Approving Multifamily Energy[1] Efficiency Programs with Modifications issued and effective July 27, 2009 ("July 27 Order") in the Energy Efficiency Portfolio Standards ("EEPS") Proceeding, Consolidated Edison Company of New York Inc. ("Con Edison"), originally submitted its Implementation Plan for its approved Refrigerator Replacement Plus ("RRP") aka "Multifamily Energy Efficiency Program" ("MFEEP") for the 2009-11 program cycle.

As required by Public Service Commission's ("Commission") *Order Authorizing Efficiency Programs, Revising Incentive Mechanism, and Establishing a Surcharge Schedule*, dated October 25, 2011, Consolidated Edison Company of New York Inc. ("Con Edison") hereby submits its updated *Multifamily Programs Implementation Plan* ("Plan") updating the implementation plan filed on September 25, 2009 for its approved electric and gas Multifamily program, for the period 2012-15.

Con Edison's Multifamily program promotes energy efficiency for existing multifamily electric and gas customers in 5 to 75 unit buildings, both in unit as well as building common areas. At the apartment level, the Multifamily program will continue to offer at no charge CFL's, smart power strips and low flow devices. The Multifamily program offers prescriptive rebates that mitigate the incremental measure cost of high efficiency alternatives to address budget constraints and building needs. The result is energy savings, more efficient building operations and improved living standards.

The Plan provides information on the delivery of the Company's Multifamily electric and gas program. The plan is a living document that will be updated as needed by the Company to reflect any new Commission Orders and programmatic changes. The Plan outlines the Multifamily program's overall budget and implementation strategy to meet the savings goal.

[1] Case 07-M-0548, proceeding on Motion of the Commission Regarding an Energy Efficiency Portfolio Standard, *Order Establishing Energy Efficiency Portfolio Standard and Approving Programs*, issued and effective June 23, 2008.

II. Implementation Plan

The tables below reflect estimates of program energy savings and budgets for the Multifamily programs.

Table 1 – Projected Savings and Cost Table (Electric)

Multifamily Energy Efficiency Program (Electric)

	Plan Year				
Benefit/Cost Component	**2012**	**2013**	**2014**	**2015**	**Total**
Savings (MWh)	8,614	8,614	8,614	8,614	34,456
Coincident Peak Savings (MW)	1	1	1	1	4
Direct Utility Costs	$7,373,304	$7,373,304	$7,373,304	$7,373,304	29,493,216
Customer Incentives or Services	$3,391,720	$3,391,720	$3,391,720	$3,391,720	13,566,879
Program Planning and Administration	$294,932	$294,932	$294,932	$294,932	1,179,729
Program Implemention Costs	$2,138,258	$2,138,258	$2,138,258	$2,138,258	8,553,033
Program Marketing and Trade Ally	$1,179,729	$1,179,729	$1,179,729	$1,179,729	4,718,915
Evaluation and Market Research	$368,665	$368,665	$368,665	$368,665	1,474,661
Program Planning and Administration	**$294,932**	**$294,932**	**$294,932**	**$294,932**	**$1,179,729**
General Administration	$221,199	$221,199	$221,199	$221,199	$884,796
Program Planning	$73,733	$73,733	$73,733	$73,733	$294,932
Program Marketing and Trade Ally	**$1,179,729**	**$1,179,729**	**$1,179,729**	**$1,179,729**	**$4,718,915**
Program Outreach and Education/Marketing	$1,105,996	$1,105,996	$1,105,996	$1,105,996	$4,423,982
Trade Ally Training	$73,733	$73,733	$73,733	$73,733	$294,932
Customer Incentives or Services	**$3,391,720**	**$3,391,720**	**$3,391,720**	**$3,391,720**	**$13,566,879**
Incentives and Services	$3,391,720	$3,391,720	$3,391,720	$3,391,720	$13,566,879
Program Implemention Costs	**$2,138,258**	**$2,138,258**	**$2,138,258**	**$2,138,258**	**$8,553,033**
Direct Program Implementation	$2,138,258	$2,138,258	$2,138,258	$2,138,258	$8,553,033
Evaluation and Market Research	**$368,665**	**$368,665**	**$368,665**	**$368,665**	**$1,474,661**
Program Evaluation	$368,665	$368,665	$368,665	$368,665	$1,474,661

Table 2 - Projected Savings and Cost Table (Gas)

Multifamily Energy Efficiency Program (Gas)

Benefit/Cost Component	Plan Year 2012	2013	2014	2015	Total
Savings (dekatherms)	132,210	132,210	132,210	132,210	528,840
Direct Utility Costs	$5,986,359	$5,986,359	$5,986,359	$5,986,359	$23,945,436
Customer Incentives or Services	$2,873,453	$2,873,453	$2,873,453	$2,873,453	$11,493,813
Program Planning and Administration	$239,454	$239,454	$239,454	$239,454	$957,817
Program Implemention Costs	$1,556,453	$1,556,453	$1,556,453	$1,556,453	$6,225,813
Program Marketing and Trade Ally	$1,017,681	$1,017,681	$1,017,681	$1,017,681	$4,070,724
Evaluation and Market Research	$299,317	$299,317	$299,317	$299,317	$1,197,268

	Plan Year 2012	2013	2014	2015	Total
Program Planning and Administration	**$239,454**	**$239,454**	**$239,454**	**$239,454**	**$957,817**
General Administration	$179,591	$179,591	$179,591	$179,591	$718,363
Program Planning	$59,864	$59,864	$59,864	$59,864	$239,454
Program Marketing and Trade Ally	**$1,017,681**	**$1,017,681**	**$1,017,681**	**$1,017,681**	**$4,070,724**
Program Outreach and Education/Marketing	$957,817	$957,817	$957,817	$957,817	$3,831,270
Trade Ally Training	$59,864	$59,864	$59,864	$59,864	$239,454
Customer Incentives or Services	**$2,873,453**	**$2,873,453**	**$2,873,453**	**$2,873,453**	**$11,493,813**
Incentives and Services	$2,873,453	$2,873,453	$2,873,453	$2,873,453	$11,493,813
Program Implemention Costs	**$1,556,453**	**$1,556,453**	**$1,556,453**	**$1,556,453**	**$6,225,813**
Direct Program Implementation	$1,556,453	$1,556,453	$1,556,453	$1,556,453	$6,225,813
Evaluation and Market Research	**$299,317**	**$299,317**	**$299,317**	**$299,317**	**$1,197,268**
Program Evaluation	$299,317	$299,317	$299,317	$299,317	$1,197,268

A. Program Description

The Multifamily Program delivers free in unit measures and gas and electric measure incentives to save energy for residential buildings with 5-75 dwelling units. The program's primary point of entry is a building energy survey designed to provide eligible energy conservation measures and other pertinent information directed to the buildings' decision maker.

The Multifamily program focuses on key delivery channels and provide targeted incentives for equipment purchase, installation and removal at the various decision points faced by owners, managers and tenants. Con Edison's energy efficiency staff provides overall strategic direction and management of the Multifamily program and will be supported by the Multifamily program contractors to conduct certain delivery and administrative functions.

B. Program Incentives

The Multifamily Program installs selected measures at no cost to the apartments of the eligible building stock. In addition, the Multifamily Program provides building common area measure incentives of up to certain percentages installed, measure or incremental cost depending on the measure. Con Edison will evaluate and monitor new cost-effective technologies and changing standards on a continuing basis, and will evaluate the impact on program participation and performance. Where appropriate, the Company may adjust its equipment performance standards and incentive levels to support program success. The program pays rebates or incentives primarily to the participant; allowances may also be made to facilitate payments directly to contractors or other entities materially involved with the installation or payment for installed measures.

List of Measures

Eligible measure types include but are not limited to:

- Lighting
    - Compact Fluorescent Lamps
    - Solid State Lamps and Fixtures
    - Ceramic Metal Halide Lamps
    - Linear Fluorescent T8 and T5 Lamps and Fixtures
    - High Intensity Discharge Lamps and Fixtures
    - Lighting Occupancy Controls
- HVAC and in unit
    - Low-Flow Aerators and showerheads
    - Smart power strips
    - Boiler Setback/Reset Controls
    - Heating and DHW Water Pipe Insulation
    - Roof, Wall, and Door Insulation
    - Programmable Thermostats
    - Energy Management Systems
    - Thermostatic Radiator Valves
    - Steam Traps
    - Boilers

Table 3 - Dwelling Unit
Eligible Measures and Incentives

Measure	Eligibility Rating	Incentive
Energy Survey	SBC paying customer	Free
Compact fluorescent lamps	ENERGY STAR®	6 installed Free
Smart Strip[2]	N/A	2 installed Free
Low flow showerhead	1.25 GPM	1-2 installed Free
Low flow kitchen and bathroom aerators	1.25 GPM	1 – 4 installed Free

Table 4 - Common Area
Eligible Measures and Incentives

Measure	Eligibility Rating	Incentive
Energy Survey	SBC paying customer	Free
HE Fixtures/Design	Technical requirements apply, according to the existing fixture type	Up to $60 - $80 per fluorescent fixture replacement, incl. $12 bonus for Super T8. Up to $110 - $125 per metal halide fixture replacement. $3 - $4 for compact fluorescent bulb. Relamp/reballasting gets 50% of fixture replacement incentive.
LED Exit Lighting	≤ 5 Watts	$50 per fixture
Bi-Level Control for Stairwell Lighting	≤ 50% Lighting power during unoccupied time	Up to $150 per fixture

[2] Smart strips are a power strip with a control device outlet and switched outlets that automatically shut down when the control device is shut down. Con Edison will provide each customer up to two smart strips for eligible uses.

Measure	Eligibility Rating	Incentive
Occupancy Sensor Control	NA	$50 per sensor
Motor – Premium Efficiency	PE Motors for HVAC Applications	$80 per HP
Motor - Pump & Fan System - Variable Frequency Drive	Pump And Fan System Optimization w/ VFD	$200 per HP
High Efficiency Boilers (Hot Water)	AFUE, $E_t \geq 85\%$	84% of incremental measure cost
High Efficiency Boilers (Hot Water)	AFUE, $E_t \geq 90\%$	84% of incremental measure cost
High Efficiency Boilers (Steam)	AFUE, $E_t \geq 82\%$	84% of incremental measure cost
Heating and Hot Water Controls	N/A	$500 for outdoor reset control. $30 for programmable thermostat.
Energy Management Systems (EMS)	N/A	70% of installed cost up to $20,000
Thermostatic Radiator Valves (TRV)	N/A	$115 per valve
Pipe Insulation	N/A	$1 - $3 per linear foot
Roof and Wall Insulation	N/A	$0.15 - $0.30 per square foot
Door Weatherstripping and Sweeps	N/A	$25 per door
Steam Traps	N/A	70% of measure cost

C. Multifamily Program

1. Target Customer Market

Small and medium sized multifamily buildings with 5-75 dwelling units are the target market. This market segment remains a significant source of untapped energy efficiency potential. Nevertheless, there are barriers to participation, including limited capital resources, lack of expertise and understanding of the benefits of energy efficiency, a suspicion of the "free offer" and its legitimacy, confusion with energy service providers offering commodity service, and language and cultural barriers. In the first cycle of EEPS the Company has worked to address and overcome these barriers through design of program outreach and marketing efforts, sales force training, and offering all available financing opportunities to customers.

2. Program Oversight to Minimize Overlap or Confusion

The Company in conjunction with the following entities will continue to coordinate efforts to minimize program overlap and eliminate customer confusion:

- New York State Energy Research Development Authority ("NYSERDA");
- National Grid, which delivers gas energy services to Brooklyn, Staten Island and parts of Queens;
- New York State Electric and Gas Company ("NYSEG"), which delivers power in the northeastern part of Westchester County;
- Other stakeholders, such as New York City and relevant entities in Westchester County.

The Company meets and speaks regularly with NYSERDA, joint utilities, Energy Efficiency Program Administrators Collaborative ("EEPAC"), Implementation Advisory Group (IAG) and Evaluation Advisory Group ("EAG") on coordination issues.

3. Roles and responsibilities of the utility and all program contractors

The Company will be responsible for all strategic decisions and will direct and implement the program marketing campaigns.

In addition, the Company will monitor all program activity, oversee and coordinate major decisions across markets and stakeholder groups, and assess and evaluate Implementation Contractors ("IC") (s) compliance in accordance with performance expectations and requirements. The Company's program manager oversees the planning, coordination, resource management, project execution, and project performance of the program.

IC(s) are selected using a competitive bid process. Customer sales, existing building surveys, explanations of recommendations to customers, and post inspection of retrofits will be delivered by the IC(s).

4. Procedures for Customer Enrollment and Participation

The Company's program management staff provides a customer eligibility list to the IC(s). Using this list the IC(s) will verify the eligibility of customers who have applied to the program through one of the outreach channels. Then the IC will contact the customer to discuss the program, and if they wish to move forward, to conduct an energy survey. The IC(s) then provide a list of participating contractors for the building to procure the measure(s) as detailed in the energy survey. The building is also free to use its own contractor provided that he/she becomes a qualified participating contractor before completion of the eligible measure(s). The IC will then post inspect the completed work and present to the Company on a monthly basis finished work that meets program standards and that are eligible for incentive payment. The participating program contractors will also be allowed to bring eligible projects into the program directly. These projects however, will not go through the full energy survey; these projects will be screened for cost effectiveness and will be pre-approved before installation. The multiple channels that customers may enroll are as follows: via telephone using the Company's toll-free number directing them to efficiency programs or the toll free number on their utility bill; on-line intake forms on the Company's website, e-mail, or via selective outreach from the IC's account management team.

Program applicants who do not fall into the Company's programs or are located in another utility's territory will be referred, if appropriate, to other program administrators.

5. Training for Retail Partners

The Multifamily Program does not utilize retail partners.

6. Contractor Training

The Company requires that all participating contractors attend training provided by the Company's IC(s). The trainings will be provided on, but not limited to, program rules, customer service and sales, direct install and emerging energy efficiency technologies, environmental health and safety issues, description of the Company's other energy efficiency and demand response portfolio of programs, and programs provided by others, such as NYSERDA. These sessions are also used to verify participating contractor's relevant licenses and insurances required to perform work in the various jurisdictions.

7. Contact Information for Customer Inquiries and Complaints

Customers with inquiries and complaints relating to the Con Edison Multifamily Program may call:

Gregory Elcock
Manager Multifamily Energy Efficiency Program
Con Edison
4 Irving Place
New York, NY 10003
212-460-6507

8. Quality Assurance

Program applications and tracking will include information necessary to verify that the customer and equipment information submitted meet the program qualification criteria. This includes confirming the customer account and location information, building information, contractor installations, and installed equipment are all in agreement with the program requirements.

IC(s) are required to verify that all aspects of the customer's project are complete and satisfactory. For each installation the IC must do the following:

- The IC performs an on-site post-verification of the installation. The test must ensure that all work is completed and in compliance with all applicable program standards.
- If a customer has any complaint about work done through the Program, the IC(s) is ultimately responsible for resolution of the issue under the direction of the Company.

The Company will undertake its own random quality assurance checks on customer sites.

9. Coordination with Other New York Energy Efficiency Programs

The Company will continue to work with NYSERDA, National Grid and the joint utilities to coordinate program delivery and marketing where applicable.

III. Marketing Plan

As noted in the March 31, 2012 Outreach Education and Marketing report to the Department of Public Service ("DPS") Office of Outreach, Education and Marketing, the C&I Programs marketing objective is tied to the Company's Green Team awareness campaign. If awareness can be raised among business customers with Green Team branding, the personal call to participate will be met with less skepticism. On this tactical level, call-to-action messaging will be directly relevant to the Green Team messaging.

The Company, working with the IC, will produce and run traditional media, online media, social media, community outreach and other broad reach strategies to specifically support the programs. The media distribution will be focused on vertical targets such as commercial office, hospital, retail, restaurants, warehousing, light industrial, and educational. The creative will be focused on successful peer program participants.

Targeted marketing campaigns delivered through traditional direct mail, email, and search engine marketing will be produced by the Company on a turnkey basis. This allows the contractor to be in complete control of the timing and process to maximize their resources.

The Company's internal customer outreach, corporate communications, public affairs, customer assistance, and economic development departments all offer key customer touch points to leverage the energy efficiency messaging. Touch points include on-bill/on-envelope messages, e-bill banners, call center scripts and website banners. Company-delivered media relations and social media will be used to identify opportunities of interest to the customer base.

A new Green Team energy efficiency website will incorporate all program information.

Table 3- Con Edison Marketing Budget Overview

Multifamily Gas and Electric 2012 – 2015 Outreach, Education and Marketing		
Strategy	**Tactics**	**Cost**
Community Outreach	Event Participation Sponsorships Media Relations Social Media Community Ally Engagement	$3,900,000
Media Advertising	Print Online Radio	$3,890,000
Digital	Website development and maintenance Email marketing Social networking	$899,639
Sales Support	Collateral Case Studies PPT	$100,000
Total		**$8,789,639**

IV. Evaluation Plan

Measurement, Verification and Evaluation Plan

The Company, in conjunction with DPS Staff, acting as the oversight agency, will adhere to the guidance provided in the EAG's recommended evaluation guidelines, and will administer detailed program evaluations for the second cycle of EEPS programs, that will be in effect from 2012-2015. The Company will hire evaluation consultants through a competitive bidding process, to conduct all evaluation assessments, and will work in conjunction with the EAG if any evaluations are deemed appropriate for future statewide evaluation review. In that case, the Companies will work in collaboration with the assigned administrator of the statewide project, and the evaluation contractor chosen through a combined review approach, utilizing the statewide prototype developed for the Residential High Efficiency Heating impact evaluation assessment, which is currently ongoing. Detailed evaluation plans will be developed and submitted for review and approval to DPS Staff (acting as the oversight agency), and their evaluation consulting review team, headed by their consultant TecMarket Works. This process is further developed below. In most cases both a process and an impact evaluation will be conducted. Process evaluations will move to the fore as program implementation continues. This will allow for strategic adjustments to be implemented increasing each program's overall efficiency and effectiveness. Process evaluation will comply with the newly created Process Evaluation protocols document, developed on behalf of the DPS Staff and the EAG by Katherine Johnson Consulting. Impact evaluations will become the focus after each program begins to mature, and the availability of program and measure specific data increases, allowing for program impacts to be thoroughly measured.

A. Administrative Support

The Company will fully support all aspects of the process and impact evaluations and will independently administer and manage these assessments by utilizing outside evaluation consultants through Con Edison's Energy Efficiency Program's MV&E section, as all MV&E employees have no involvement in the implementation of any of the Companies' approved programs. The group's responsibilities will be to define the scope of all evaluations, communicate that scope by developing RFPs to solicit the participation of evaluation consultants, oversee the competitive selection process for all evaluation services solicitations, manage the workflow of all contracted consultants by holding weekly status conference calls, review all documents created by the consultants, inform the consulting team on program operations so that they can probe internal and external staff intelligently about program implementation. Upon completion of that effort, MV&E will communicate results back to program implementers, managers, executive management, DPS Staff, PSC Commissioners and other stakeholders. Con Edison's MV&E group will oversee both Con Edison and Orange & Rockland Utilities EEPS program evaluation activities.

B. Data Reliability Issues

The Company will review all plans and proposals submitted by selected evaluation consultants to ensure that they are aligned and consistent with the guidelines established by the EAG. All research must satisfy the 90/10 criteria established for confidence and precision. Additionally, all proposals must ensure that a concerted effort will be made to mitigate threats to the reliability of all results by utilizing methods to minimize systematic and random error, and reduce uncertainty. A discussion of these items will be a required element of all final evaluation reports.

C. Data Collection Requirements

Much of the data that will be required to conduct these evaluations will be collected and extracted from the program data collection templates that were designed by DPS Staff, and vetted through a review process, and utilized for Monthly Scorecard reporting. Data residing in each implementation contractor's program specific database and Con Edison's internal data repository will also be utilized. Data will be collected as a response to our Consulting team's documented data requests (which will be sequentially numbered) and submitted through the MV&E group, who will facilitate the request and return the data through accepted cyber security vehicles. MV&E will also ensure that all evaluation consultants will meet internal data security criteria for both the transportation and storage of customer specific, program related data. Additionally, data collected from meter and logging equipment installed at various customer facilities, will be utilized as a key component to conduct the impact analysis.

D. Evaluation Budgets Established

Consistent with the EEPS Order for all evaluation activity, budgets have been established at approximately 5% of the total program budget. The Companies thus will attempt to conduct all evaluation activity required while remaining within the parameters of these budgets. At this time it would be speculative to attempt to project the exact costs of all process and impact evaluations that will be required through the current EEPS period ending in 2015. All evaluations will go through a competitive bidding process and costs will be determined at that time and contingent upon budgetary restrictions. If joint statewide evaluations are conducted, we expect that all costs will be allocated in a fair and equitable manner among the participants. Budget provisions for statewide evaluation efforts were established at a not to exceed guideline amount of 33% of the overall 5% budgets for evaluation.

E. Overall Evaluation Methodology

The primary goal of the impact and process evaluations is to document the energy savings attributable to each program and to help identify areas where the performance of each program can be improved, or report on program operations that are functioning well. Additionally, the Company will work closely with its peers on the EAG and its sub-committees to streamline evaluation protocols and methodologies across New York State. Data derived from the Con Edison's Energy Efficiency Potential Study may be used to support all evaluations conducted by the Companies where applicable, and may be used as a guide to support ongoing baseline

assessment work by NYSERDA (under direction from the EAG) for the residential and commercial market segments elsewhere in the state..

F. Process Evaluation Methodology

All process evaluations will utilize the process evaluation protocols published by the NYS EAG, along with the evaluation guidelines that were published, and recently updated in 2012 by DPS Staff. The process evaluation is expected to focus on (but not be limited to) 6 key areas of research:

- Program Planning
- Continued Infrastructure Development
- Marketing and Customer Acquisition
- Program Delivery
- Customer satisfaction with program experiences
- Interaction with other programs ongoing in the State

The evaluation will be based on a detailed program specific evaluation work plan. The work plan will include a sampling design plan which adheres to the 90/10 guideline for confidence and precision, along with survey instruments that will be developed and submitted for DPS review and approval. Once the survey instruments are approved, they will undergo a rigorous testing procedure to gauge whether they can be conducted in a reasonable amount of time which will respect the customers' time constraints. Other survey instruments will be developed to gather data from internal program staff, customers (both participants and non-participants) of the program, implementation contractor staff, and key market actors, and will focus on improving the efficiency of program recruitment, delivery and adoption of measures, and overcoming barriers to participation. Key market factors include trade allies, local business, community groups and unions. Program related data will also be reviewed to assess program operations versus stated and approved program goals. The process evaluation will begin during the early stages of program implementation in time to provide the required feedback to program managers on the progress and performance of each program. Participant surveys will be designed to focus on extracting information from the customer's experience with the program, and will also serve as a vehicle for obtaining more detailed site information in support of the upcoming impact evaluations that will follow. Participant sampling for these surveys will be based upon stratified samples designed to satisfy 90/10 criteria for confidence and precision. Participant samples will allow for some stratification by fuel, building type, geographical location and measure type but issues such as these will be discussed in length with the evaluation consulting team to determine what avenue presents the best approach in achieving the most accurate results. All parties involved in the delivery of these programs will be required to be available for multiple interviews, and will provide project and program information as required

It is anticipated at this time that the surveys will be implemented over the life of the program. Participant surveys will include a free ridership and participant spillover module, and the non-participant surveys will include a measure adoption module.

The process evaluation will also include an "Evaluability Assessment" review of data collection and tracking, and review (or development) of the program logic model, indicators and researchable issues. The process evaluation will be designed to identify program findings that

can be used to inform program personnel and management, and allow for corrective actions to be taken by integrating change with a minimal amount of interruption to ongoing program operations, which will maintain and improve customer throughput and acquired savings levels.

G. Impact Evaluation Methodology

Impact evaluations quantify the level of savings (gross and net) from ongoing energy efficiency program operations, and in this case are used on a prospective basis only. Strategic implementation of an impact assessment should depend upon the amount of time the program has been in operation in order to receive the full benefit of the data collected. The most appropriate type of research will be conducted, after the MV&E team discusses program operations with the evaluation consulting team. No one method is used consistently, and in many situations multiple or hybrid approaches are often contemplated before a course of action is implemented. Therefore is would be premature to propose an impact methodology at this time. Results from ongoing MFEEP impact evaluations (2009-2011) may shed additional insight (when completed) on future program assessments. However we strive to utilize as much primary data as possible for the analysis.

Process and Impact Evaluation Plan

Program evaluations are currently being conducted for both Process and Impact (in the early stages) for the 2009-2011program.

A. Process Evaluation

We envision that a second round of process evaluation will take place, now that multiple vendors will be implementing this program during the 2012-2015 period. Surveys will be designed to adhere to the guidelines presented by Staff, and reinforced by the EAG. Surveys will be conducted to interview participants and non-participants, various Implementation contractor employees and Con Edison employees, and trade allies to satisfy 90/10 criteria for confidence and precision.

B. Impact Evaluation

During the latter portion of the 2012-2015 program period we anticipate initiating a second impact evaluation for this program. The Companies have just initiated impact evaluations for the 2009-2011 EEPS program portfolio, due to delayed implementation of many of our programs. The main objectives of the Impact assessment will be to:

- Quantify energy and demand savings attributable to program activities, measures installed
- Develop a Net-to-Gross analysis to include the effects of free-ridership and spillover (both participant and non-participant) on the program. (As currently directed by the NYS EAG and contained in the Tec Market Works Technical

Manual developed for New York State, 10% is the current projection for use until the actual analysis is conducted.)
- Determine Market penetration rates (quantifying the increase in the stocking levels of efficient equipment)
- Determine whether any revisions can be suggested in algorithms currently found in New York State's Technical Review Manual ("TRM") which governs the savings algorithms (and subsequent calculations) across the State.
- Inform program design for future program planning

The sample size of randomly selected customer sites will be at a level that will support and satisfy 90/10 criteria for confidence and precision. A proposed component of the second round of impact evaluations, not currently being assessed during the 2009-2011 review is to look at the market effects associated with this and other efficiency program initiatives. This component was deemed to be less important during the initial program review, but worth a drill down during the second round of evaluations.

The Companies would be willing to work jointly with other Program Administrators (PA's) of the EAG to implement this assessment in a statewide evaluation framework (if one is determined to be appropriate), however if no statewide evaluation consultant is selected by the EAG, the Companies are prepared to issue RFPs to conduct separate and distinct impact evaluations to be competitively bid. Much of the required data will be extracted from the data collection templates that were designed by DPS Staff. Additionally a combination of billing analyses and selective end-use metering may be used in conjunction with detailed post-installation inspections which will determine the level of demand and energy savings along with a determination for persistence of installed measures. Where additional data is required in a specific customer class or market segment, Con Edison's Market Research section of the Energy Efficiency Program Department will support the MV&E section, and the evaluation consulting team to supply the required data.

1. Engineering Analysis

The use of appropriate engineering analyses will be discussed at length with the evaluation consulting team at the appropriate time and a further assessment will be made at that juncture to determine the best available methodology. Refrigerator Replacements, which were originally envisioned to be the foundation of this program, never materialized as they were never able to pass cost effectiveness tests. However, the MFEEP program still offers a variety of a diverse set of measures. Applicable measures address the common areas of these buildings, as well as in-unit tenant apartments, if they so choose. Some measures are offered and installed free, while others involve an incentive which requires the customer to contribute a portion of the cost.

- Free Measures
    - Energy Survey
    - Smart Strip
    - CFLs (6)
    - Low-Flow Showerhead
    - Dual Spray Swivel Kitchen Aerator

- Room ACs
- Lighting, Occupancy Sensors
- Various HVAC / Chillers
- Common Area & Building System Replacements
- High Efficiency Gas & Steam Boilers / Gas Furnaces etc.
- Premium Efficiency Motors & VFDs
- Building Shell Improvements

Because these measures are so different, each will be treated differently. The Company views this as an opportunity to augment any analysis with data collected from on-site end-use metering / data logging of measures, which has not been conducted in many years. Conducting this research and the subsequent analysis will help develop a better understanding of individual equipment and will help validate program design assumptions and inform the statistical analysis. It should be noted that any site visit activity to a customer's premises will be governed by a task specific Health and Safety Plan ("HASP") which is currently being developed by our evaluation consultants in conjunction with oversight from internal Con Edison and O&R Environmental Health and Safety ("EH&S") personnel.

2. Statistical Analysis of Consumption Histories

Statistical analysis of consumption histories involving a regression-based comparison of pre- and post-program energy use between participants and a matching sample of non-participants will be the principal method for determining electricity and gas savings in this program. Since the analysis combines data on participants and non-participants, it will also yield estimates on "net" savings. Discussions with our evaluation consulting team will determine which methodology will provide the most accurate results for the program, or we may use a dual approach where it is deemed appropriate.

3. Data Requirements

Data necessary for the impact assessment will consist of five main elements:

1. Twelve consecutive months of consumption histories for electricity and gas;
2. Daily weather data from the local weather stations for calculating heating and cooling degree days (HDD and CDD);
3. Expected (planning) estimates of savings from specific measures installed at each site;
4. Modified planning estimates where such modifications have been made subsequent to energy simulation modeling; and
5. Monitored equipment data used in calibration of engineering models.

4. Calculation of Net Program Impacts

Net energy and demand (coincident and non-coincident) savings from the program may be obtained directly from the estimated parameters of the Statically Adjusted Engineering ("SAE") model at the measure and program levels. These estimates will be used to adjust the planning estimates of measure savings for subsequent years.

5. Quality Assurance / Quality Control

The MV&E group also plans to conduct a review of project sites that are installed and completed each month as part of the Large C&I Program effort. Each project is reviewed to assess the reasonableness of its projected energy savings, against its account usage history over the prior 24 month period. Projects that exhibit a savings to usage ratio (S/U) of greater than 50 %; 100 % or higher are flagged for potential site visits. Sites chosen for site visits will be surveyed by a member or our M&V contractor, along with a member of the MV&E staff. The site visit will review installed fixture counts, fixture types, along with other installed equipment. The survey will also probe building / business owners for the operating characteristic of their business or facility, to judge if operating hours of the facility were applied properly from the NYS Technical Manual or whether they utilized self reported operating hours. Another function of the site visit will be to assess whether the correct customer account was utilized; (in instances where customer businesses have multiple accounts present.)

The effort described above is in addition to the program related QA/QC effort randomly conducted shortly after energy conservation measures are installed.