CON EDISON

Updated Commercial and Industrial Programs Implementation Plan

Consolidated Edison Company of New York, Inc. Case 08-E-1127, Case 09-G-0363

8/31/2012

Commercial & Industrial
Equipment Rebate Program (Electric & Gas)
&
Commercial & Industrial
Custom Efficiency Program (Electric & Gas)

As required by the New York Public Service Commission's *Order Authorizing Efficiency Programs, Revising Incentive Mechanism, and Establishing a Surcharge Schedule, dated October 25, 2011*, this document revises and updates the original Commercial and Industrial Programs Implementation Plan submitted by Con Edison on December 22, 2009.

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I. Introduction

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 Commercial and Industrial Programs Implementation Plan* ("Plan") updating the implementation plan filed on December 22, 2009 for its approved electric and gas commercial & industrial ("C&I") equipment rebate ("C&I Rebate") programs and the electric and gas C&I custom efficiency programs ("C&I Custom") (together the "C&I Programs"). The December 22, 2009 implementation plan was submitted in response to the Commission's *Order Approving Certain Commercial and Industrial Customer Energy Efficiency Programs with Modifications,* issued and effective October 23, 2009 ("October 23 Order"), and *Order Approving Certain Commercial and Industrial Customer Energy Efficiency Programs with Modifications and Addressing Independent Program Administrator Filings* issued and effective November 13, 2009 ("November 13 Order) in the Energy Efficiency Portfolio Standards ("EEPS") Proceeding.

Con Edison's C&I Rebate program promotes the purchase and installation of specific high-efficiency equipment by C&I customers in existing facilities. The C&I Rebate program provides customers with financial incentives to offset the higher purchase cost of energy efficient equipment and information on the features and benefits of energy efficient equipment.

Customers interested in installing high-efficiency equipment not included in the C&I Rebate Program may go through Con Edison's Custom program. The C&I Custom program offers performance-based incentives for cost-effective, but more complex or innovative technologies that are not included among Con Edison's prescriptive rebates. The program also provides technical support to assess the cost effectiveness of custom measures and project installation assistance.

The program is delivered through an Implementation Contractor ("IC") that markets and sells the program, provides technical services, works with market partners, conducts general administration, inspects installations, and reports to the Company on all aspects of program delivery. The Company re-bid the IC role in the spring of 2012, receiving over a dozen expressions of interest, and yielding the retention of the existing IC for the program cycle 2012-15.

The Plan provides information on the components of the Company's C&I Programs. The Plan is a living document and will be updated as needed by the Company to reflect any new Commission orders and programmatic changes. The Plan outlines the C&I Programs' overall budget and implementation strategy to meet its goal.

II. Implementation Plan

Table 1-4 Projected Program Budgets and Savings Goals

C&I Equipment Rebate Program (Electric)

	Plan Year				
Benefit/Cost Component	**2012**	**2013**	**2014**	**2015**	**Total**
Savings (MWh)	66,574	66,574	66,574	66,574	266,296
Coincident Peak Savings (MW)	22	22	22	22	88
Direct Utility Costs	$37,479,994	$37,479,994	$37,479,994	$37,479,994	$149,919,975
Customer Incentives or Services	$20,088,233	$20,088,233	$20,088,233	$20,088,233	$80,352,932
Program Planning and Administration	$4,058,776	$3,558,776	$3,158,776	$3,158,776	$13,935,104
Program Implemention Costs	$5,554,605	$5,554,605	$5,554,605	$5,554,605	$22,218,420
Program Marketing and Trade Ally	$5,904,380	$6,404,380	$6,804,380	$6,804,380	$25,917,520
Evaluation and Market Research	$1,874,000	$1,874,000	$1,874,000	$1,874,000	$7,495,999

	Plan Year				
	2012	**2013**	**2014**	**2015**	**Total**
Program Planning and Administration	**$4,058,776**	**$3,558,776**	**$3,158,776**	**$3,158,776**	**$13,935,104**
General Administration	$2,841,143	$2,491,143	$2,211,143	$2,211,143	$9,754,573
Program Planning	$1,217,633	$1,067,633	$947,633	$947,633	$4,180,531
Program Marketing and Trade Ally	**$5,904,380**	**$6,404,380**	**$6,804,380**	**$6,804,380**	**$25,917,520**
Program Outreach and Education/Mark	$4,428,285	$4,803,285	$5,103,285	$5,103,285	$19,438,140
Trade Ally Training	$1,476,095	$1,601,095	$1,701,095	$1,701,095	$6,479,380
Customer Incentives or Services	**$20,088,233**	**$20,088,233**	**$20,088,233**	**$20,088,233**	**$80,352,932**
Incentives and Services	$20,088,233	$20,088,233	$20,088,233	$20,088,233	$80,352,932
Program Implemention Costs	**$5,554,605**	**$5,554,605**	**$5,554,605**	**$5,554,605**	**$22,218,420**
Direct Program Implementation	$5,554,605	$5,554,605	$5,554,605	$5,554,605	$22,218,420
Evaluation and Market Research	**$1,874,000**	**$1,874,000**	**$1,874,000**	**$1,874,000**	**$7,495,999**
Program Evaluation	$1,874,000	$1,874,000	$1,874,000	$1,874,000	$7,495,999

C&I Equipment Rebate Program (Gas)

Benefit/Cost Component	Plan Year 2012	2013	2014	2015	Total
Savings (dekatherms)	55,381	55,381	55,381	55,381	221,524
Direct Utility Costs	$3,197,500	$3,197,500	$3,197,500	$3,197,500	$12,790,000
Customer Incentives or Services	$2,041,941	$2,041,941	$2,041,941	$2,041,941	$8,167,764
Program Planning and Administration	$377,922	$377,922	$377,922	$377,922	$1,511,688
Program Implemention Costs	$446,122	$446,122	$446,122	$446,122	$1,784,488
Program Marketing and Trade Ally	$171,640	$171,640	$171,640	$171,640	$686,560
Evaluation and Market Research	$159,875	$159,875	$159,875	$159,875	$639,500

Benefit/Cost Component	Plan Year 2012	2013	2014	2015	Total
Program Planning and Administration	**$377,922**	**$377,922**	**$377,922**	**$377,922**	**$1,511,688**
General Administration	$188,006	$188,006	$188,006	$188,006	$752,023
Program Planning	$189,916	$189,916	$189,916	$189,916	$759,662
Program Marketing and Trade Ally	**$171,640**	**$171,640**	**$171,640**	**$171,640**	**$686,560**
Program Outreach and Education/Marketing	$85,820	$85,820	$85,820	$85,820	$343,280
Trade Ally Training	$85,820	$85,820	$85,820	$85,820	$343,280
Customer Incentives or Services	**$2,041,941**	**$2,041,941**	**$2,041,941**	**$2,041,941**	**$8,167,764**
Incentives and Services	$2,041,941	$2,041,941	$2,041,941	$2,041,941	$8,167,764
Program Implemention Costs	**$446,122**	**$446,122**	**$446,122**	**$446,122**	**$1,784,488**
Direct Program Implementation	$446,122	$446,122	$446,122	$446,122	$1,784,488
Evaluation and Market Research	**$159,875**	**$159,875**	**$159,875**	**$159,875**	**$639,500**
Program Evaluation	$159,875	$159,875	$159,875	$159,875	$639,500

C&I Custom Efficiency Program (Electric)

Benefit/Cost Component	Plan Year 2012	2013	2014	2015	Total
Savings (MWh)	9,131	9,131	9,131	9,131	36,524
Coincident Peak Savings (MW)	4	4	4	4	16
Demand Savings (MW)	5	5	5	5	20
Direct Utility Costs	$6,091,429	$6,091,429	$6,091,429	$6,091,429	$24,365,718
Customer Incentives or Services	$3,668,237	$3,768,237	$3,868,237	$3,868,237	$15,172,948
Program Planning and Administration	$606,737	$506,737	$406,737	$406,737	$1,926,948
Program Implemention Costs	$872,152	$872,152	$872,152	$872,152	$3,488,608
Program Marketing and Trade Ally	$639,732	$639,732	$639,732	$639,732	$2,558,928
Evaluation and Market Research	$304,571	$304,571	$304,571	$304,571	$1,218,286

	Plan Year 2012	2013	2014	2015	Total
Program Planning and Administration	**$606,737**	**$506,737**	**$406,737**	**$406,737**	**$1,926,948**
General Administration	$424,716	$354,716	$284,716	$284,716	$1,348,864
Program Planning	$182,021	$152,021	$122,021	$122,021	$578,084
Program Marketing and Trade Ally	**$639,732**	**$639,732**	**$639,732**	**$639,732**	**$2,558,928**
Program Outreach and Education/Mark	$499,791	$499,791	$499,791	$499,791	$1,999,163
Trade Ally Training	$139,941	$139,941	$139,941	$139,941	$559,766
Customer Incentives or Services	**$3,668,237**	**$3,768,237**	**$3,868,237**	**$3,868,237**	**$15,172,948**
Incentives and Services	$3,668,237	$3,768,237	$3,868,237	$3,868,237	$15,172,948
Program Implemention Costs	**$872,152**	**$872,152**	**$872,152**	**$872,152**	**$3,488,608**
Direct Program Implementation	$872,152	$872,152	$872,152	$872,152	$3,488,608
Program Evaluation	**$304,571**	**$304,571**	**$304,571**	**$304,571**	**$1,218,286**
Evaluation and Market Research	$304,571	$304,571	$304,571	$304,571	$1,218,286

C&I Custom Efficiency Program (Gas)

Benefit/Cost Component	Plan Year 2012	2013	2014	2015	Total
Savings (dekatherms)	36,839	36,839	36,839	36,839	147,356
Direct Utility Costs	$1,740,907	$1,740,907	$1,740,907	$1,740,907	$6,963,629
Customer Incentives or Services	$1,100,000	$1,100,000	$1,100,000	$1,100,000	$4,400,000
Program Planning and Administration	$136,343	$136,343	$136,343	$136,343	$545,372
Program Implemention Costs	$257,124	$257,124	$257,124	$257,124	$1,028,496
Program Marketing and Trade Ally	$160,395	$160,395	$160,395	$160,395	$641,580
Evaluation and Market Research	$87,045	$87,045	$87,045	$87,045	$348,181

	Plan Year 2012	2013	2014	2015	Total
Program Planning and Administration	**$136,343**	**$136,343**	**$136,343**	**$136,343**	**$545,372**
General Administration	$68,172	$68,172	$68,172	$68,172	$272,686
Program Planning	$68,172	$68,172	$68,172	$68,172	$272,686
Program Marketing and Trade Ally	**$160,395**	**$160,395**	**$160,395**	**$160,395**	**$641,580**
Program Outreach and Education/Marketing	$88,646	$88,646	$88,646	$88,646	$354,584
Trade Ally Training	$71,749	$71,749	$71,749	$71,749	$286,996
Customer Incentives or Services	**$1,100,000**	**$1,100,000**	**$1,100,000**	**$1,100,000**	**$4,400,000**
Incentives and Services	$1,100,000	$1,100,000	$1,100,000	$1,100,000	$4,400,000
Program Implemention Costs	**$257,124**	**$257,124**	**$257,124**	**$257,124**	**$1,028,496**
Direct Program Implementation	$257,124	$257,124	$257,124	$257,124	$1,028,496
Evaluation and Market Research	**$87,045**	**$87,045**	**$87,045**	**$87,045**	**$348,181**
Program Evaluation	$87,045	$87,045	$87,045	$87,045	$348,181

A. Program Description

The Commercial and Industrial Programs provide incentives and rebates to electric and gas customers for the installation of energy efficient technologies. The Programs also provide co-funding for comprehensive energy studies. Eligibility includes all customers on commercial & industrial electric and gas rates that pay the System Benefit Charge ("SBC"). Small and medium sized C&I customers (average monthly peak demand of less than 100kW) are referred to the Small Business Direct Install ("SBDI") program.

B. Program Incentives

The C&I programs provide incentives and rebates for the installation of energy efficient measures through both rebate and custom programs. The programs also provide co-funding for comprehensive energy studies. Incentives are paid directly to the Con Edison customer of record.

As stated in the October 23 and November 13, 2009 Orders, the Commission requires that the total incentive paid by any rebate not exceed a one-year payback period for commercial customers and on-half year on industrial customers.

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 Controls

- HVAC
  - Packaged Terminal AC/HP
  - Unitary HVAC and Split Air Systems
  - Air-to-Air Heat Pump
  - Water Source Heat Pump
  - Chillers
  - Gas Furnaces and Boilers
  - Gas Infrared unit heater
  - Infiltration Controls Measures
  - Motors
  - HVAC Package Unit Tune-Ups
  - Programmable Thermostats

- Building system controls
  - Direct digital control (DDC)
  - Variable frequency drives (VFDs)

- Energy studies- A technical study is offered to customers to evaluate the feasibility and cost effectiveness of potential efficiency measures or more comprehensive facility upgrades. The Company will provide up to 50 percent of the cost of a technical study.
    - The programs provide co-funding for comprehensive energy studies.
    - Electric or gas study co-funding is capped at $50,000.
    - Total technical study reimbursement for combined gas/electric projects will be capped at $67,000.

Custom efficiency measures are any measures, process and operational improvements that provide cost effective energy savings in an eligible customer facility are potentially eligible for incentives under this program. Electric custom incentives are capped at $250,000 per project. Gas custom incentives are capped at $100,000 per project. Incentives are limited by measure payback. Minimum net paybacks after incentives are one year for commercial customers and six months for industrial customers.

Custom incentives are paid as follows:

Electric Custom Incentive Structure

	Savings Level	Buy Back Rebate
Tier 1	Up to 10%	$0.08/kWh
Tier 2	11 to 20%	$0.10/kWh
Tier 3	> 20%	$0.12/kWh
Tier 4	≥ 5% peak demand reduction	10% bonus

Gas Custom Incentive Structure

	Savings Level	Custom Incentive
Tier 1	Up to 20%	$1/first year therm savings
Tier 2	Over 20%	$2/first year therm savings

TRC Testing- each measure in the C&I programs has been tested to ensure that the measure passes the TRC test. As required, the Company also runs project TRC tests on all projects, which include a share of the program administrative burden, scaled to the energy savings of the project. Total measure benefits are calculated using avoided costs, avoided capacity costs, and financial assumptions (discount rate, inflation rate, and line losses) provided in previous Orders. Total benefits relied on avoided costs, avoided capacity costs, carbon reductions, and financial assumptions listed above. In addition, the TRC analyses at the program level include program costs, shareholder incentives and adjustment for net to gross benefits.

C. Commercial & Industrial Programs

1. Target Customer Market

Con Edison will target C&I customers in existing buildings in various market segments, including but not limited to:

- Individual tenants as well as owners of commercial buildings with tenant occupied space (to encourage participation in energy efficiency), both new owners and tenants in existing facilities, as well as those embarking on renovation projects; and
- Office buildings, healthcare facilities, data centers and multifamily common areas;
- Gas customers on firm gas accounts that pay SBC.

The Company is targeting facility managers and building engineers – frequently the first line decision makers with respect to facility energy uses – to encourage installation of new energy efficient technologies and adoption of best operating practices

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;
- New York Power Authority ("NYPA"), which generates electricity and delivers electric services to various government and non-government customers throughout New York State; and
- Other stakeholders, such as New York City and 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.

The market construct in the C&I sector is that Con Edison and NYSERDA both provide incentives for customers. The Company works to help the customer understand the benefits and differences of working with Con Edison and NYSERDA.

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

The Company will be responsible for strategic decisions and will direct and implement the strategic 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 IC compliance in accordance with performance expectations and requirements. The Company's program management staff oversees the planning, coordination, resource management, project

execution, and project performance of the program. The company uses in-house staff to perform pre and post install inspections for rebate projects.

IC(s) are selected using a competitive bid process to ensure cost-effective delivery of services. Application processing, technical evaluation, custom project inspections, business development, tactical marketing and reporting will be delivered by the IC(s).

4. Procedures for Customer Enrollment

The Company, with its IC, has developed a network of market partners to offer energy efficiency solutions to customers. The IC has a team of business development representatives that support the market partner's efforts to develop and implement energy efficiency solutions. The Company's program management staff provides a customer contact list to the IC(s) to support direct sales activity with customers. Using this list the IC(s) will contact the customer to set up an appointment to meet to discuss the program, and if they wish to move forward, to refer them to the market partner network. Ultimately the successful sales process will result in the submission of a program application. Business development representatives will aid the customers or market partners in the completion of the application forms.

Additionally, customers may enroll in other ways: 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; and e-mail. Upon receipt of the completed application, the project is evaluated for program eligibility and the appropriate incentives are calculated. An incentive offer letter is sent to the customer for their review and approval. Upon receipt of an approved incentive offer letter, the incentive funds are encumbered and the pre-installation inspection is scheduled. When the inspection is completed, the customer is given permission to proceed with the installation.

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 Market Partners

The C&I Programs provide training on program process and guidelines in Market Partner recruiting events as well as via webinar. Program changes are provided to market partners via a periodic newsletter as well as webinar based training. Training is also provided to promote solutions for specific market segments.

6. Contractor Training

The Company requires that the IC's employees attend training provided by the Company. The trainings will be provided on, but not limited to, customer service and sales, description of the Company's energy efficiency and demand response portfolio of programs and programs provided by others, such as NYSERDA, and environmental health and safety issues.

7. Contact Information for Customer Inquiries and Complaints

Customers with inquiries and complaints relating to the Con Edison C&I Program may call:

David Pospisil
Manager, Commercial & Industrial Energy Efficiency Programs
Con Edison
4 Irving Place
New York, NY 10003
212-460-2429

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, equipment make and model numbers are all in agreement with the program requirements.

The pre and post inspection duties are split in the C&I program with Con Edison staff performing inspections on rebate projects while IC staff provides inspections for custom projects. In either case, inspectors are required to verify and document that all aspects of the customer's project are complete and satisfactory. For each installation the inspector must do the following:

- The inspector performs an on-site pre-installation inspection to verify existing conditions. Any difference from submitted paperwork is reconciled with the customer or market partner prior to the start of installation work.
- The inspector performs an on-site post-installation inspection to verify the installation of the approved building systems. Any discrepancies with project submittals are reconciled with the customer or market partner and incentives are adjusted as required.
- Inspections are performed for a minimum of 10 percent of approved program applications. Samples will be based upon 90/10 confidence sampling.

9. Coordination with Other New York Energy Efficiency Programs

The Company will continue to coordinate with NYSERDA and the joint utilities as described in Section 3. In addition, The Company and NYSERDA began in 2010 and are continuing data center customer collaboration. Both the Company and NYSERDA market to data centers, dividing the market by size with Con Edison servicing the smaller data center projects with savings under 500,000 kWh and NYSERDA servicing customers above that level of savings.

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.

Budget Overview

Commercial and Industrial Gas/Electric Rebate and Efficiency 2012 – 2015 Outreach, Education and Marketing		
Strategy	**Tactics**	**Cost**
Community Outreach	Event Participation Sponsorships Media Relations Social Media Trade Ally Engagement	$10,222,974
Media Advertising	Print Online Radio	$12,011,249
Digital	Website development and maintenance Email marketing Social networking	$7,451,147
Sales Support	Collateral Case Studies PPT	$119,218
Total		**$29,804,588**

IV. Evaluation Plan

Measurement, Verification & Evaluation

The Company, in conjunction with DPS Staff acting as the oversight agency, will adhere to the guidance provided in the New York State Evaluation Advisory Group's ("EAG") 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.

1. **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.

2. **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.

3. 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, vetted through a review process, and utilized for Monthly Scorecard reporting. Data residing in each IC'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.

4. 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 Company 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.

5. 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 Company 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.

6. 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, IC 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 actors 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.

7. Impact Evaluation Methodology

Impact evaluations determine the level of savings (gross and net) from ongoing energy efficiency program operations. 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 C&I 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.

Large C&I Program Suite

C&I Equipment Rebate – Electric
C&I Equipment Rebate – Gas
C&I Custom Efficiency – Electric
C&I Custom Efficiency – Gas

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

1. Process Evaluation

We envision that a second round of process evaluation will take place; a selected vendor 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 IC employees and Con Edison employees, and trade allies to satisfy 90/10 criteria for confidence and precision.

2. Impact Evaluation

During the latter portion of the 2012-2015 program periods we anticipate initiating a second impact evaluation for this program. The Company has 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 and 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; and
- 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 review, but worth a drill down during the second round of evaluations.

The Company would be willing to work jointly with other Program Administrators 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. The Large C&I program suite offers a diverse set of measures. Therefore the treatment for each measure type may be different. The Company views this as an opportunity to augment any analysis with data collected from on-site end-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 Plans ("HASP") which are 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 Statistically 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. The adjusted savings estimates will also be used in conjunction with actual accrued costs to re-calculate the cost effectiveness of the program.

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 programmatic QA/QC effort randomly conducted shortly after energy conservation measures are installed.