

**Business Partners – Commercial Lighting Program
Program Logic Model Report**

Final Report

Prepared for

**The New York State
Energy Research and Development Authority**

Prepared by

GDS Associates, Inc.

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**NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY
NEW YORK ENERGY SMARTSM
BUSINESS PARTNERS - COMMERCIAL LIGHTING PROGRAM
PROGRAM LOGIC MODEL REPORT
(FINAL – MARCH 25, 2010)**

INTRODUCTION

This document provides:

- 1) A table showing a list of documents relating to NYSERDA's **New York Energy SmartSM Business Partners: Commercial Lighting Program** that were used to provide insight during development of this program logic model report;
- 2) A high level summary of the context of the markets within which this program operates, the other NYSERDA programs it works with to accomplish the **New York Energy SmartSM** goals, other potentially complementary and/or competing programs, and a brief program description. Available market characterization information is also presented in this section;
- 3) Key program-specific elements, including the ultimate goals of the program, market barriers, targeted market actors, program activities, inputs, anticipated outputs/outcomes, and potential external influences, information on how program activities are expected to change the behavior of market(s)' actors is also presented in this section;
- 4) A program logic model diagram showing the linkages between inputs, program activities, outputs and outcomes, and identifying potential external influences;
- 5) A table listing the key outputs and outcomes, including identification of relevant measurement indicators and potential data collection approaches to guide later prioritization, and development of a monitoring and evaluation plan, and
- 6) A list of potential researchable issues for consideration within evaluation planning.

1 RELATED NYSERDA DOCUMENTS

The following table identifies NYSERDA and other potentially relevant documents that were reviewed for this report:

Table 1 – Relevant Documents Reviewed

NYSERDA Document Description
GDS Associates, Inc. New York Energy \$martSM Business Partners Program Logic Model Report. Final July 2007
RFP 1054 Business Partners Program: Commercial Lighting
PON 1059 Business Partners Commercial Lighting Program Incentives
RFP 1053 Business Partners Program: Core Services
NYSERDA Business Partners Program Final Evaluation, Measurement and Verification Plan. August 2009
New York System Benefits Charge Programs Evaluation and Status Report. Quarter Ending December 31, 2009
New York \$martSM Program Evaluation and Status Report Year Ending December 31, 2008. Final Report March 2009
NYSERDA's Business Partners Commercial Lighting Program Participation Agreement. Expires May 31, 2010
NYSERDA Website: The Right Light: Effective, Energy-Efficient Lighting Solutions
Summit Blue Consulting, New York Energy \$martSM Small Commercial Lighting Program Market Characterization, Market Assessment, and Causality Evaluation Final Report, April 2005
Summit Blue Consulting, New York Energy \$martSM Small Commercial Lighting Program Market Characterization, Market Assessment, and Causality Evaluation Final Report, May 2006
Business Partners Program for Commercial Lighting – Statement of Work
DSIRE Website: New York Incentives/Policies for Energy Efficiency
State of New York Public Service Commission, Order Approving Certain Commercial and Industrial Customer Energy Efficiency Programs with Modifications, October 15, 2009
State of New York Public Service Commission, Order Approving Certain Commercial and Industrial Customer Energy Efficiency Programs with Modifications, November 12, 2009
Central Hudson Gas & Electric website: Savings Central
National Grid's Website: National Grid Small Business Program
NYSEG and RG&E websites: Look Upstate New York Assistance & Incentives
Con Edison Website: Con Edison's Residential Gas Heating, Ventilation and Cooling Program
Orange and Rockland website: Orange & Rockland Small Business Energy Efficiency Program

2 CONTEXT AND PROGRAM DESCRIPTION¹

The Business Partners Program, of which the Commercial Lighting Program is a component, is designed to promote the purchase and installation of energy efficient products and services through working with trade allies (providers of energy efficient products and services), including but not limited to manufacturers, manufacturer representatives, vendors, retailers, distributors, architects, engineers, lighting designers, and energy service companies (ESCOs). The Program is also aimed at promoting the availability of the most energy efficient products on the market. Part of the goal is to train allies on the most efficient equipment (a strong market transformation effort tied to the program). Through the Program, commercial and industrial business partners gain access to special training, tools, guidelines, and performance incentives. NYSERDA works with its business partners to help them differentiate their

¹ NYSERDA Business Partners Program Final Evaluation, Measurement and Verification Plan. August 2009 and RFP 1054 and PON 1059.

businesses in a highly competitive marketplace, while assuring appropriate quality. This is done by creating a brand identity that conveys the theme that mid-market businesses are vital to the growth of the energy efficiency industry as well as to the State's economy. Through the Business Partners Program, NYSERDA aims to accomplish the following objectives:

1. Improve and make market development efforts more friendly
2. Offer potential participants one-stop shopping (*i.e.*, a turnkey approach to program participation)
3. Provide better integration among programs serving different products and markets

By achieving these objectives, NYSERDA hopes to strengthen the overall impact of market development efforts and increase the visibility and focus of energy efficient products and services for commercial and industrial businesses. The Business Partners Program consists of two key activities: 1) providing core services and strategies for use across market development efforts, and 2) providing customized tools and strategies that strengthen the availability, delivery, and demand for targeted energy efficient products and services. Participating business partners will also work closely with contractors from NYSERDA's Energy Smart Focus program to integrate relevant core themes and resources into sector-based plans and activities and will work with other NYSERDA project managers and implementation contractors.

With a thirteen year budget of \$43.9 million², through December 2009, **New York Energy \$martSM** Business Partners cumulative annual energy and peak demand savings total 97,221 MWh/year and 23.4 MW on-peak, respectively.³ Overall, the Business Partners Program goal is to sign up 1,500 partners over five years. A total of 154 Commercial Lighting partners have signed up since July 1, 2006.⁴ Table 2, below, shows the Business Partners Program's five year (through 2011) goals and achievements through December 31, 2009.

Table 2 – New York Energy \$martSM Business Partners Program – Goals and Achievements

	Program Goals (July 1, 2006 through June 30, 2011)	Program Achievements July 1, 2006 through December 31, 2009	Program % of Goal Achieved
Business Partners (signed up)	1,500	204 including 154 Lighting partners	14%
Demand Savings (MW)	9	23	>100%
Energy Savings (gWh)	45	97	>100%

The Business Partners Program is an integration of three prior programs: Motors Systems, Commercial Lighting, and Building Performance and HVAC. Activities associated with each of these program components, it is believed, will help to increase the awareness and familiarity of the Program's targeted technologies and services. By partnering with businesses, market infrastructure is strengthened leading to increased product and service availability and increased demand. All three of these Business Partners Program components are designed to work together to promote high-efficiency equipment. However, separate Program Logic Model reports are being developed for each component to properly identify and document important differences in implementation strategies and anticipated market outcomes. The remainder of this document focuses exclusively on the *Commercial Lighting* component as discussed in more detail below.

² **New York Energy \$martSM** Program Evaluation and Status Report Year Ending December 31, 2008. Final Report March 2009.

³ New York System Benefits Charge Programs Evaluation and Status Report. Quarter Ending December 31, 2009.

⁴ New York System Benefits Charge Programs Evaluation and Status Report. Quarter Ending December 31, 2009.

The *Commercial Lighting* component of NYSERDA's Business Partners Program, formerly known as the Small Commercial Lighting Program, partners with lighting practitioners to promote the use of effective, energy efficient lighting known as "The Right Light" - in commercial and industrial spaces up to 100,000 square feet. The Program provides lighting professionals with tools and resources to leverage the principals of effective, energy efficient lighting design as a profitable business strategy. The Program defines Commercial Space as 1,000 square feet to 100,000 square feet used as commercial, retail institutional, industrial, governmental spaces, and common areas in hotels, motels, and multi-family buildings ("Commercial Space")⁵. Through this Program, Commercial Lighting Business Partners are offered the following services and support:⁶

- Training to identify techniques that increase sales of efficient lighting systems
- Design tools
- Promotional materials such as Program literature
- Technical Assistance including phone support and limited on-site assistance
- Publicity through the Program website and case studies

In addition to providing training, the Program also provides field support, project incentives, and demonstration awards to participating lighting practitioner allies (contractors, distributors, manufacturer representatives, lighting designers, architects, and engineers). Pursuant to PON 1059, NYSERDA will pay incentives and awards to business partners for projects and other activities, which may include the following:

- Cash incentives for the design or installation of eligible projects
- Bonus incentives for projects exceeding the 2007 Energy Conservation Construction Code for New York (ECCCNYS 2007) requirements by more than 20%, or using certain lighting technologies
- Quarterly competition awards and demonstration project awards
- Cash incentives for employees who complete the National Council on Qualifications for Lighting Professionals (NCQLP) Lighting Certification (LC) Exam
- Cash incentives for web promotion and marketing materials for business partners identifying their business with the Program. (See PON 1059 for additional incentives)

The program is implemented by ICF International and through December 2009, the Commercial Lighting component of the Business Partners Program has achieved a cumulative annual energy and peak demand savings total of 72,615 MWh/year and 19 MW On-Peak, respectively.⁷

Through the Business Partners: Commercial Lighting Program NYSERDA intends to enhance efforts including:

- Enrolling business partners who agree to strengthen the availability, delivery, and demand for targeted products and services
- Focus on highly efficient technologies and newly available and underused technologies and services, particularly those that promise significant reductions in energy use and costs

⁵ PON 1059 Business Partners Commercial Lighting Program Incentives

⁶ NYSERDA's Business Partners Commercial Lighting Program Participation Agreement. Expires May 31, 2010

⁷ New York System Benefits Charge Programs Evaluation and Status Report. Quarter Ending December 31, 2009

- Offer a number of strategies to help participating partners differentiate their business in a highly competitive marketplace, while maintaining high standards of quality. Strategies are likely to include special training, tools, guidelines, recognition, and field support and performance incentives.

As part of the overall Business Partners Program effort, NYSERDA has broadly categorized its commercial and industrial market development efforts into two groups, as shown in Table 3. Group A programs have a stronger market development focus but only modest, to no incentives, providing significant informational or educational components. Group B programs are incentive-based and have a stronger emphasis on resource acquisition, providing financial assistance for targeted energy-efficiency and demand reduction measures in specific end-use customer projects. Business Partners will focus initially on developing services for the Group A programs, anticipating expanding to Group B programs in the second phase of the program. Unless otherwise noted, NYSERDA has offered these programs throughout the SBC territory, which includes the electric utility service areas of: Central Hudson Gas & Electric Corporation, Consolidated Edison Company of New York, Inc., New York State Electric & Gas Corporation, National Grid, Orange and Rockland Utilities, Inc., and Rochester Gas and Electric Corporation.

Table 3 – NYSERDA’s Commercial and Industrial Programs

Group “A”	Group “B”
Small Commercial Lighting Program HVAC and Building Performance Program Premium Efficiency Motors (no incentives) Innovative Opportunities	New York Energy \$mart SM Energy Audit Program Flex Tech Technical Assistance Program Combined Heat and Power and Renewable Generation Technical Assistance Enhanced CIPP (now Existing Facilities) New York Energy \$mart SM New Construction Program Green Buildings Program Peak Load Reduction Program (now part of Existing Facilities) New York Energy \$mart SM Loan Fund

2.2- MARKET ASSESSMENT

The most recent full Market Characterization, Assessment, and Causality (MCAC) evaluation for the **New York Energy \$martSM** Small Commercial Lighting Program (SCLP) was completed in 2005. The comprehensive evaluation covered the period from program inception through year-end 2004. All data in this section, unless noted otherwise, are from the 2005 full MCAC report, and describe the state of energy efficiency in New York as of that time.

2.2.1 Description of Baseline Conditions

Buildings Already Served

Through December 2009, the Business Partners – Commercial Lighting Program cumulative annual energy and peak demand savings totaled 72,615 MWh/year and 19 MW On-Peak, respectively, with 154 Business Partners currently participating in the program⁸.

Market Share and Distribution Channels

Per the most recent (2005) MCAC report, sixty-four (64%) percent of allies reported that their promotion of effective, energy-efficient lighting had increased somewhat or significantly over the past two years, and 79% of these same allies indicated that the SCLP has had some influence on this increase. Active distributors showed a higher level of influence than all other ally types. Additionally, about half (51%) of all participating allies surveyed believed that the number of lighting-related firms active in the state had increased in the past year (2004).

The percentage of allies who have submitted applications for project incentives varied by ally type. Designers had the lowest activity level in the program, with only 4% of designers requesting project incentives. Distributors had the highest rate of requesting project incentives, with nearly 40% of participating distributors filing for incentives.

For the 2005 program year, the industrial sector saw a significant increase in activity, based on square footage of space enrolled, and constituted 53% of all space compared to a cumulative program average of 32% for the industrial market.

In 2005, designers were beginning to enroll in the program at a rate higher than both contractors and distributors. Eighty-four (84) designers had applications pending, which if approved would increase the number of approved designers by 100% from 84 to 168. This reflects an effort to increase the program's exposure among these influential market actors (including lighting designers and interior designers).

Awareness

Fifty-five (55%) percent of all allies (active and inactive⁹) believed that end-use customers were either somewhat or extremely aware of the benefits of effective, energy-efficient lighting. Similarly, 61% of these same allies reported that awareness had increased somewhat or increased significantly in the past two years.

Availability of Energy Efficient Products and Services

Sixty-eight (68%) percent of active and inactive allies reported that the SCLP tools had increased the number of effective, energy-efficient lighting projects they completed.

Attitudes, Behaviors and Perception

Active distributors tend to submit more projects, per firm, than do active contractors. Since program inception, 91 active contractors who have submitted projects submit an average of 1.7 projects each. Thirty-four (34) active distributors have submitted 90 projects, indicating an average submittal rate of three (3) projects per active distributor.

⁸ Program Staff

⁹ In the 2005 report active allies are individuals of firms that submitted for a project incentive through the SCLP and inactive allies have signed participation agreements with NYSERDA, but have yet to submit for a project incentive.

2.3 - RELEVANT NEW YORK UTILITY AND ISO-SPONSORED PROGRAMS

In addition to NYSERDA's Commercial Lighting component of the Business Partners Program, there are a number of other potentially relevant programs being implemented in New York that are summarized briefly below. These programs are included as External Influences in Section 3.5 of this report and are identified in the program logic diagram as factors with the potential to impact (*i.e.*, either help or hinder) achievement of NYSERDA's program goals.

2.3.1 New York Utility Commercial Lighting Programs

While New York area utility programs focus on the customer side of the market, incentivizing the installation of high-efficiency commercial lighting, it is important to note that NYSERDA's Business Partners: Commercial Lighting Program works in both the demand side and mid-market with the focus on working with its business partners to help them differentiate their businesses in a highly competitive marketplace. While NYSERDA's program is a comprehensive program, aimed at transforming the larger market for high-efficiency lighting, the following utility-sponsored lighting programs have the potential to impact NYSERDA's efforts.

Central Hudson Gas & Electric – *Small Business Energy Efficiency Program*¹⁰

The Business Energy Savings Central program is for non-residential customers of Central Hudson with electric demand of less than 100 kilowatts average per month. This includes businesses, local governments, not-for-profits, private institutions, public and private schools, colleges and healthcare facilities. The program offers a free energy audit by one of Central Hudson's participating Trade Allies or a representative of Central Hudson, which provides a report detailing where efficiency measures (including Lighting and Lighting Controls and Sensors) can produce the most savings, the cost of installing each measure, the expected payback period for each installation, and rebates up to 70 percent of the equipment cost of a qualified efficiency upgrade. After installation, a Central Hudson representative will inspect the project based on the quality assurance plan at completion to verify that the upgrade matches the performance specified in the auditor's proposal.

Central Hudson – *Mid-size Commercial Business Program*¹¹

This program would address energy efficiency for the non-residential customer segment with electric loads of 100 kW to 350 kW. It would provide services including: energy audits, implementation assistance, and prescriptive and custom measures and incentives for implementing energy efficiency improvements at facilities within this electric demand range, such as hotels, motels, restaurants, grocery stores, and colleges. The proposed prescriptive measures and corresponding incentives are comparable to those offered by the Small Commercial Business Direct Installation electric energy efficiency program that Central Hudson currently operates for commercial customers with loads of up to 100 kW. Prescriptive rebates would include: (a) lighting; (b) heating, ventilation, and air conditioning (HVAC) equipment, including ground source heat pumps and heat pump water heaters; and (c) motors and variable speed drives for single speed motors. Eligible custom measures would receive a one-time incentive payment of \$0.14 per kWh saved annually.

¹⁰ DSIRE website, New York Incentives/Policies for Energy Efficiency, [Central Hudson Gas & Electric - Small Business Energy Efficiency Program](#)

Central Hudson Gas & Electric website: [Savings Central](#)

¹¹ State of New York Public Service Commission, Order Approving Certain Commercial and Industrial Customer Energy Efficiency Programs with Modifications, October 15, 2009

National Grid – Small/Mid-Sized Business Energy Efficiency Program (Upstate New York)¹²

National Grid's Small/Mid-Sized Business Program is for business customers in upstate New York with an average demand of 200 kilowatts or less (or 40,300 kilowatt-hours or less) per month. The program aids qualifying business customers in installing energy efficient equipment (including Lighting and Lighting Controls and Sensors). National Grid provides a free energy audit and report of recommended energy efficiency improvements. If the business customer chooses to make the recommended improvements using National Grid's vendor and equipment, National Grid will pay up to 70% of the cost of the installation of energy efficient equipment. The remaining balance can be paid through the customer's electric bill, at 0% interest over a maximum period of 24 months. Customers paying their share in a single lump sum are provided a 15% discount.

National Grid – Energy Initiative Program¹³

The Energy Initiative program component addressed here would target commercial and industrial customers with a demand of less than 2 MW to promote retrofits of mechanical and electrical systems in commercial, industrial, agriculture, governmental, and institutional buildings. The program would provide technical assistance and incentives to encourage installation of energy efficiency measures and provide recommendations for ways to improve energy efficiency. The program addresses both electric and gas energy efficiency measures using both prescriptive and custom measures and incentives.

National Grid proposes that the electric portion of the Energy Initiative program offer three services: financial incentives, technical assistance, and commissioning. Eligible customers could qualify for custom and/or prescriptive incentives. The proposed custom rebates would equate to either 50% of the total installed measure costs, which include labor and equipment, or the cost to buy down the equipment costs to the customer to the equivalent of a one-year payback, whichever cost is less to National Grid. The proposed prescriptive measures include lighting systems, lighting controls, energy management systems and economizer controls, efficient motor and drive systems, air compressors, high performance ventilation, and variable frequency drives.

Consolidated Edison- Small Business Direct Installation Program¹³

Consolidated Edison is offering free on-site energy survey and incentives for energy efficient heating, cooling and lighting. Con Edison business customer with an average peak monthly electric demand under 100kW, qualify for a free energy survey. Con Ed will install energy efficiency measures at no cost such as compact fluorescent lamps (CFLs), low-flow aerators, high pressure rinse sprayers, and a water heater thermostat setback. Customers can also achieve even greater energy and financial savings with incentives of up to 70% when they install high efficiency lighting, ballasts and fixtures; retro commission your existing heating, ventilation and cooling (HVAC) system; install an ENERGY STAR rated programmable thermostat for heating and cooling, and more.

Consolidated Edison- Commercial and Industrial Equipment Rebate Program¹³

The proposed program is designed to encourage commercial and industrial customers to purchase and install high-efficiency equipment in their facilities. It would offer customers financial incentives at a rate of up to 70% of either the measure cost or the incremental measure cost (depending on the measures installed) for installing high-efficiency heating, cooling, and ventilation equipment, or for upgrading lighting and motors.

Consolidated Edison- Commercial & Industrial Custom Efficiency Program¹⁴

¹² DSIRE website, [New York Incentives/Policies for Renewables & Efficiency, National Grid - Small/Mid-Sized Business Energy Efficiency Program](#) National Grid's Website: [Small Business Program](#)

¹³ Con Edison Website: [Con Edison's Residential Gas Heating, Ventilation and Cooling Program](#)

This program would provide incentives for energy efficiency measures in existing buildings and for new construction that are not offered through other programs. Incentives would be offered to participants for any measure, process, or operational improvement that provides cost-effective energy savings. C&I customers would be offered financial incentives for upgrading equipment or systems and improving processes (e.g., lean manufacturing, retro-commissioning, or monitoring-based commissioning) not covered specifically by other Con Edison C&I programs. Initially, the program would place special emphasis on data centers and healthcare facilities. Con Edison plans to offer a rebate to cover up to 50% of the cost of a technical survey to identify potential cost-effective measures in a facility. The total survey rebate amount would be capped at \$50,000.

Orange & Rockland – Commercial Existing Buildings Program¹³

This program would target existing commercial and industrial customers with a peak demand of over 100 kW for retrofit projects and incentives to avoid lost opportunities for installing cost-efficient measures at the time of equipment replacement or facility expansion. The program offers incentives for both prescriptive and custom energy efficiency measures that include, but are not limited to: interior and exterior lighting, HVAC equipment, refrigeration, retro-commissioning, high-efficiency customer-site transformers, water heating measures, and high efficiency kitchen equipment. Incentives for custom measures include all cost-effective measures not offered prescriptively.

Orange & Rockland – Small Business Direct Install Program¹⁵

Business customers with peak demands less than 100 kW may be eligible to receive 70% of the installed cost of energy efficient lighting measures directly from O&R.

New York State Electric and Gas and Rochester Gas & Electric – Non-Residential Small Business Direct Installation Program¹⁷

These electric direct installation programs are similar to "fast track" programs of this type previously approved for all the electric utilities except NYSEG/RG&E. These programs are proposed for the non-residential customer segment with electric load of less than 100 KW. The programs are designed to identify cost-effective efficiency improvement opportunities and encourage customers to implement energy-efficiency improvements by providing a free assessment of a customer's facilities and direct installation of the measures selected by the customer on a cost-shared basis. Eligible measures would include, but are not limited to: lighting retrofits, incandescent exit signs, occupancy sensors, light emitting diode (LED) refrigeration case lights, and vending machine controls. NYSEG/RG&E propose an incentive of 70% of installed measure costs, with a customer obligation for 30% of the costs.

New York State Electric and Gas and Rochester Gas & Electric – Non-Residential Commercial and Industrial Prescriptive Rebate Program¹³

NYSEG/RG&E propose a prescriptive rebate program for their non-residential electric and gas customers. The program is designed to serve commercial, industrial, institutional, and municipal customers with an electric load of less than 2 MW, although customers with demand of 2 MW or greater would also be eligible to participate. Electric rebates would be available for: air conditioning, chillers, heat pumps, lighting and lighting controls, electric motors, and variable speed drives. Rebates have been proposed on the basis of the measure type and/or efficiency rating. Eligible heating (gas) equipment and controls would receive rebates on the basis of type, size, and efficiency rating.

¹⁴ State of New York Public Service Commission, Order Approving Certain Commercial and Industrial Customer Energy Efficiency Programs with Modifications, November 12, 2009

¹⁵ Orange and Rockland website: [Small Business Energy Efficiency Program](#)

New York State Electric and Gas and Rochester Gas & Electric – Non- Residential Commercial and Industrial Custom Rebate Program¹⁷

These proposed programs are directed toward commercial, industrial, institutional, and municipal customers with an electric load of less than 2 MW, although customers with load greater than 2 MW would also be eligible to participate. The programs are designed to encourage customers to identify and implement energy efficiency improvements in their facilities. NYSEG/RG&E propose general categories of eligible measures for rebates that may include, but are not limited to: energy management systems, building thermal envelope upgrades, energy recovery systems and economizers, variable-speed air compressors, energy efficient process improvements, geothermal heating and cooling, day-lighting systems, infrared radiant heaters, steam traps, grain dryers, and heat-recovery systems. Rebates would be paid on the basis of either 50% of the incremental difference between the cost of a standard equipment measure and the comparable energy-efficient equipment option or the amount necessary to reach a two-year equipment payback period in energy consumption savings, whichever is less.

New York State Electric and Gas and Rochester Gas & Electric – Business Energy Efficiency Assistance¹⁶

NYSEG and RG&E partner NYSERDA on several programs to encourage energy efficiency. Under these NYSERDA programs, the applicant will be required to make a financial contribution of at least 33.3% to the total investment made. Through NYSERDA's Energy Audit Program, NYSEG and RG&E will provide up to 50% matching funds, (\$10,000 maximum) toward the total investment made as a result of an energy audit. Through either NYSERDA's Flexible Technical Assistance Program (Flex Tech) or New Construction Program, NYSEG and RG&E will pay up to 33.3% of the cost of a feasibility study or analysis, not to exceed \$20,000 per study/analysis. If the applicant decides to make investments as a result of a study or analysis, RG&E will provide up to \$50,000 toward the total investment made.

New York Utility and NYSERDA Residential Programs

In addition to the NY utility C&I programs noted above, a number of residential programs are also being offered by NY utilities that have lighting components which could impact the markets within which NYSERDA's Business Partners – Commercial Lighting program component is engaged. In addition, components of NYSERDA's own **New York Energy SmartSM Products Program** also has the potential to impact similar markets.

2.3.2 NYISO

It is possible that participants in the Business Partners: Commercial Lighting Program are eligible to participate in several demand-response programs offered by the NYISO. Awareness of and coordination with these programs potentially has many benefits for both end-users and the state. The NYISO has two Demand Response programs: the Emergency Demand Response Program (EDRP) and ICAP Special Case Resources (SCR) program. Both programs can be deployed in energy shortage situations to maintain the reliability of the bulk power grid.¹⁷

- The Emergency Demand Response Program is designed to reduce power usage through the *voluntary* shutting down electrical end-uses (or turning on on-site electric energy generators) within businesses and large power users. Companies, mostly industrial and commercial, sign up to take part in the EDRP. The companies are paid by the NYISO for reducing energy consumption when asked to do so by the NYISO.

¹⁶ NYSEG and RG&E websites: [Look Upstate New York Assistance & Incentives](#)

¹⁷ NYISO website, Markets and Operations, [Demand Response Programs](#)

- Special Case Resources is a program designed to reduce power usage through the *mandatory* interruption of large electrical end uses within participating businesses and large power users’ facilities. Companies, mostly industrial and commercial, sign up to become SCRs. The companies must, as part of their agreement, curtail power usage, usually by shutting down critical end uses when asked by the NYISO. In exchange, they are paid in advance for agreeing to cut power usage upon request.

The NYISO's Day-Ahead Demand Response Program (DADRP) also allows energy users to bid their load reductions, or "negawatts", into the Day-Ahead energy market as generators do. Offers determined to be economic are paid at the market clearing price. DADRP allows flexible loads to effectively increase the amount of supply in the market and moderate prices.

3 KEY ELEMENTS SUMMARY

Based on a review of relevant NYSEDA documents, below is a summary of some key elements of the Business Partners Program – Commercial Lighting component.

3.1 Ultimate Goals

The Business Partners: Commercial Lighting Program is part of NYSEDA’s commercial and industrial (C&I) program portfolio. The C&I sector portfolio is designed to address all SBC goals by developing sustainable business, industrial, and institutional markets for energy efficiency and demand management. The market infrastructure and demand side goals for the broader C&I portfolio are listed in Table 4.

Table 4 – Goals for NYSEDA’s C&I Programs

Market Infrastructure/Policy	Demand-Side
Expanded delivery channels for energy efficiency and demand response services	Projects demonstrate persistent energy savings and provide other benefits to end-users
Larger, robust and sustainable market for energy efficiency services and products	Customers have reliable information on which to base energy-related decisions
Increased capacity of energy services companies to deliver quality projects that produce reliable benefits	Customers have confidence in energy savings estimates and value the energy efficiency and green building features of their projects
Increased number of firms with experience and confidence in delivering energy efficiency and peak load reduction measures	Access to energy efficiency services is improved for all types of customers including underserved customers

The Business Partners: Commercial Lighting Program directly contributes to the above Market Infrastructure/Policy goals by streamlining and improving market relationships that NYSEDA has built among trade allies and by improving the ability of existing market actors to deliver energy efficient products and services through NYSEDA programs. The Business Partners: Commercial Lighting Program seeks to develop new, and build upon existing partnerships with upstream and midstream market allies in order to bring the most efficient equipment to the market and effectively deploy that equipment through NYSEDA programs. Tools, information, and improved branding and marketing will directly improve the ability of market infrastructure actors to deliver high efficiency projects to end users. Through interaction with the Commercial Lighting component, NYSEDA intends to demonstrate to targeted market actors the value of providing efficient equipment and services so they are committed to stocking, promoting, and installing efficient equipment for the long term.

The Business Partners: Commercial Lighting Program contributes to demand side goals indirectly by working to improve the services of key segments of trade allies most involved in energy efficient equipment selection and installation. Efforts on the part of Commercial Lighting to improve branding and marketing on behalf of participating firms is expected to result in more visibility for qualified partners,

more consumer awareness of key services, and more confidence in partners associated with the Business Partners: Commercial Lighting brand.

The program's success will be measured in numbers of Commercial Lighting Partners and in energy and demand savings achieved as part of the overall Business Partners Program. Specifically, through December 2009, the Commercial Lighting component of the Business Partners Program has achieved a cumulative annual energy and peak demand savings total 72, 615MWh/year and 19 MW On-Peak, respectively.¹⁸ Other key Program outputs through December 2009 are highlighted in Table 5 below (all values reported are cumulative since Program inception):

Table 5 - Business Partners - Commercial Lighting Program - Key Program Outputs

Outputs	Value (Cumulative: program inception through December 2009)
Number of participating allies	958
Dollar value of incentives awarded	\$1,367,855
Number of completed projects	1,295
Square footage of projects completed	11.8 million
Total persons trained on effective, energy efficient lighting	2,005
Number of individuals at BP companies that received incentives for taking the National Council on Qualifications for Lighting Professions (NCQLP) certification exam	16

The Commercial Lighting Program has also established additional goals for the period July 1, 2008 through June 30, 2010, including:

Project Square Footage:	4,000,000 square feet
Peak Demand Reduction:	7 MW
Energy Savings:	21 GWh
Recruit and Engage:	60 + new design practitioners
Recruit and Engage	100 + Lighting Business Partners in other categories

3.2 Market Barriers/Issues the Program Attempts to Address (“the Problem”):

NYSERDA is seeking a stronger and more coordinated approach to its market development efforts focused on expanding the products and services that will deliver energy efficiency to commercial and industrial businesses in New York. It is hoped that better visibility, improved coordination, branding, and targeted services for Partners will increase the participation of and impact from market actors most likely to sell, install, or repair energy using equipment at commercial and industrial facilities. Since these market actors are often in the best position to recommend specific equipment or action to their customers, improving the visibility and skill of Partners who understand energy efficiency and NYSERDA program opportunities should result in increased participation among their customers.

The Commercial Lighting component operates within the Business Partners Program and the larger NYSERDA **New York Energy \$martSM** portfolio designed to create market opportunities and maximize

¹⁸ New York System Benefits Charge Programs Evaluation and Status Report. Quarter Ending December 31, 2009

benefit for participants and society. To encourage participation, the Business Partners: Commercial Lighting Program works with market actors to overcome a variety of market barriers including:

- Information or search costs related to the lack of expertise among market actors in providing the information required to choose higher efficiency options
- Product or service unavailability, high efficiency products are expensive to manufacture and stock (example LEDs)
- Difficulty reaching the decision maker at critical decision points
- Performance uncertainties on the part of both the consumer and the contractor

Barriers associated with the commercial, industrial and institutional sectors can be broken down into three general categories: barriers affecting the supply side, mid-market/infrastructure barriers, and barriers affecting the demand side market actors. Supply-side and mid-market/infrastructure barriers include business practices and policies that deter the development and/or delivery of energy efficient products and services, or indicate an insufficient availability of or commitment to such energy efficient products/services. Demand-side barriers in the commercial and industrial sector primarily revolve around competing needs for capital, performance uncertainties, and information or search costs. Table 6 lists specific barriers related to market actors (not ordered by priority) for the commercial, industrial, and institutional sector.

Table 6 – Commercial, Industrial and Institutional Sector Market Barriers and Actors

Market Area	Barriers	Market Actors
Supply side	<p>*S1 – Limited availability of energy efficient lighting equipment</p> <p>*S2 – Uncertainty regarding future demand for energy efficient lighting technologies</p> <p>*S3 – Lack of demand for high efficient lighting technology</p> <p>*S4 – Lack of experience with new lighting technologies and high efficiency equipment</p> <p>S5 – Lack of product labeling for efficient lighting equipment</p>	<p>Vendors, manufacturers, distributors and suppliers of energy efficient lighting equipment</p> <p>Codes/standards and policy makers</p> <p>Utilities and load serving entities, NYISO</p>
Market Infrastructure / policy	<p>*M1 – Information or search costs. Specifically, the lack of expertise among equipment sales staff and installers who are unable to provide the analysis required by commercial and industrial customers when choosing a higher efficiency option and installing equipment</p> <p>*M2 – Performance uncertainty. Limited experience with energy efficient lighting equipment</p> <p>*M3 – Uncertainty about profit potential for providing energy efficiency services</p> <p>*M4 – Limited service availability. Subcontractors have limited training and experience necessary for energy efficient equipment installation and application of specific building techniques and designing for optimum energy performance</p> <p>*M5 – Limited product availability. Limited availability or long waiting times for energy efficient equipment and products to specifically meet the needs of the C&I customer</p> <p>*M6 – Undervaluing energy efficiency and sustainable practices</p> <p>M7 – Contractors unwilling to learn and conduct services outside of their specific trade</p> <p>M8 – Lack of knowledge and access to information about market prices, trends, and market volatility needed to participate in dynamic pricing, wholesale bidding and other load management options</p> <p>*M9 – Inability to reach the decision maker during the decision making process</p> <p>*M10 – Competing priorities for allocation of resources by firms that could sell, install or support energy efficiency, demand response, or renewable generation technologies and services.</p>	<p>Lighting contractors, distributors, ESCOs, engineers, architects, designers, equipment suppliers and others capable of providing accurate information in an energy audit</p> <p>Builders, contractors, retailers, sales staff, and installation contractors</p> <p>Sub-contractors and building trades</p>
Demand side	<p>*D1 – Lack of awareness, knowledge and understanding of energy efficiency lighting, renewable energy and load management features, products and services</p> <p>D2 – Lack of awareness, knowledge and understanding of the profit potential, equipment necessary, and business practices required to benefit from dynamic pricing and demand management options</p> <p>*D2 – Competing priorities, especially priorities associated with primary business focus</p> <p>*D3 – Information costs associated with understanding the energy-related features and associated benefits of energy efficient, renewable energy, demand reduction technologies and other sustainable practices</p> <p>*D4 – Competing needs for capital creating reluctance to pay higher first or incremental cost</p> <p>*D5 – Lack of reliable information on energy efficient choices and how they may apply to a given building or business</p> <p>*D6 – Resistance to new and/or innovative technologies and/or contractors</p>	<p>Commercial and industrial business owners and managers</p> <p>Purchasers</p> <p>General contractors hired to oversee renovations or remodels that include energy efficient equipment (lighting)</p>

Market Area	Barriers	Market Actors
	*D7 –Performance uncertainties (uncertainty of savings) D8 – Lack of knowledge of real-time pricing and other load management options D9 – Confusion caused by overlapping NYISO, NYSERDA, and utility programs	

*indicates barriers that the Commercial Lighting Program seeks to directly address

3.3 Targeted Market Actors

The Business Partners: Commercial Lighting Program targets suppliers and providers of energy efficient lighting products and services for the commercial and industrial sectors. NYSERDA has established relationships with more than 1,000 businesses, but seeks to make these market development efforts more customer friendly, offer potential participants “one-stop” shopping, provide better integration among programs and markets, improve the overall marketing of the Partner brand and value, and expand demand for products and services. Contractors will coordinate and link services within Business Partners component programs and with the Energy \$mart Focus Program to target specific sectors, in addition to coordinating with other NYSERDA commercial customer incentive programs

3.4 Business Partners Commercial Lighting Program Implementation Approach (“Activities”)

The Business Partners: Commercial Lighting Program activities work mainly with market actors in targeted market segments by: 1) building relationships, 2) simplifying NYSERDA affiliation, 3) providing valuable tools and services, 4) establishing a more cohesive brand, 5) facilitating program participation among contacts, and 6) coordinating with other regional/national and utility or NYSERDA initiatives to encourage consistency in promoted technologies and design templates. As shown in Table 7 below, these six activities can be grouped into three main delivery mechanisms: 1) relationships and promotion, 2) tools and training, and 3) program coordination and collaboration. In addition, evaluation, monitoring and verification, and the provision of incentives are also included as Program activities. Enhancements to the existing Program are also being made and include: expanded implementation of effective, energy-efficient lighting by broadening the educational efforts to a wider audience of Lighting Business Partners (including entities such as energy service companies, energy auditors, and other lighting design practitioners), devising alternative incentives structures, and encouraging the use of advanced lighting technologies and integrated lighting design solutions.

Table 7 – Business Partners - Commercial Lighting Program Activities

Relationships and Promotions
<p>Materials developed (logos, messages, brochures) to promote effective, energy efficient lighting in commercial and industrial spaces</p> <p>Identify and recruit target market Partners (including lighting practitioners) through meetings, one-on-one, and association connections</p> <p>Communication and coordination with Partners – maintain proactive contacts with new and active Business Partners as needed (newsletters, e-mails)</p>
Tools and Training
<p>Technical information to encourage Partners to leverage the principals of effective, energy-efficient lighting design as a profitable business strategy</p> <p>Web-based tools developed</p> <p>Sales strategies</p> <p>Training (site-visit training as requested)</p> <p>Tools and resources (life-cycle cost tool)</p> <p>Technical and design assistance</p> <p>Field support</p> <p>Non-web tools developed</p>
Coordination and Collaboration
<p>Coordination with and leverage relevant, regional/national lighting programs, NYSERDA customer-focused efforts (Energy Smart Focus), and other NYSERDA Business Partners Program elements (Motors & HVAC)</p> <ul style="list-style-type: none"> • Northeast Energy Efficiency Partnerships (NEEP for HVAC and Lighting - Regional), Consortium for Energy Efficiency (CEE - National), US DOE, National Electrical Manufacturers Association (NEMA), DOE Commercial Lighting Solutions, Design Lights Consortium, <p>Collaboration and engagement with New York area Utilities</p>
Evaluation, Monitoring and Verification
<p>Conduct market research, evaluation and reporting activities (monthly and quarterly status reports)</p> <ul style="list-style-type: none"> • Post-installation assessments to verify projects have been installed consistent with the program • Maintain program databases • Develop case studies, highlighting “improved design techniques and efficient technologies”
Incentives Provided
<p>Incentives available for Partner firms</p> <ul style="list-style-type: none"> • Cash Incentives for the design or installation of eligible Projects • Bonus cash incentives for use of certain lighting technologies and exceeding ECCCNY2007 by more than 20% • Quarterly Competition Awards and Demonstration Project Awards • Cash Incentives for employees who complete the National Council on Qualifications for Lighting Professionals (NCQLP) Lighting Certification (LC) Exam • Cash Incentives for web promotion and marketing materials for Business Partners identifying their business with the Program.

3.5 Program Inputs and Potential External Influences

The Business Partners: Commercial Lighting Program’s ability to accomplish the outputs and outcomes likely to result in the Program reaching its ultimate goals will depend on the level and quality/ effectiveness of the inputs that go into these efforts. Additionally, there are external influences that can

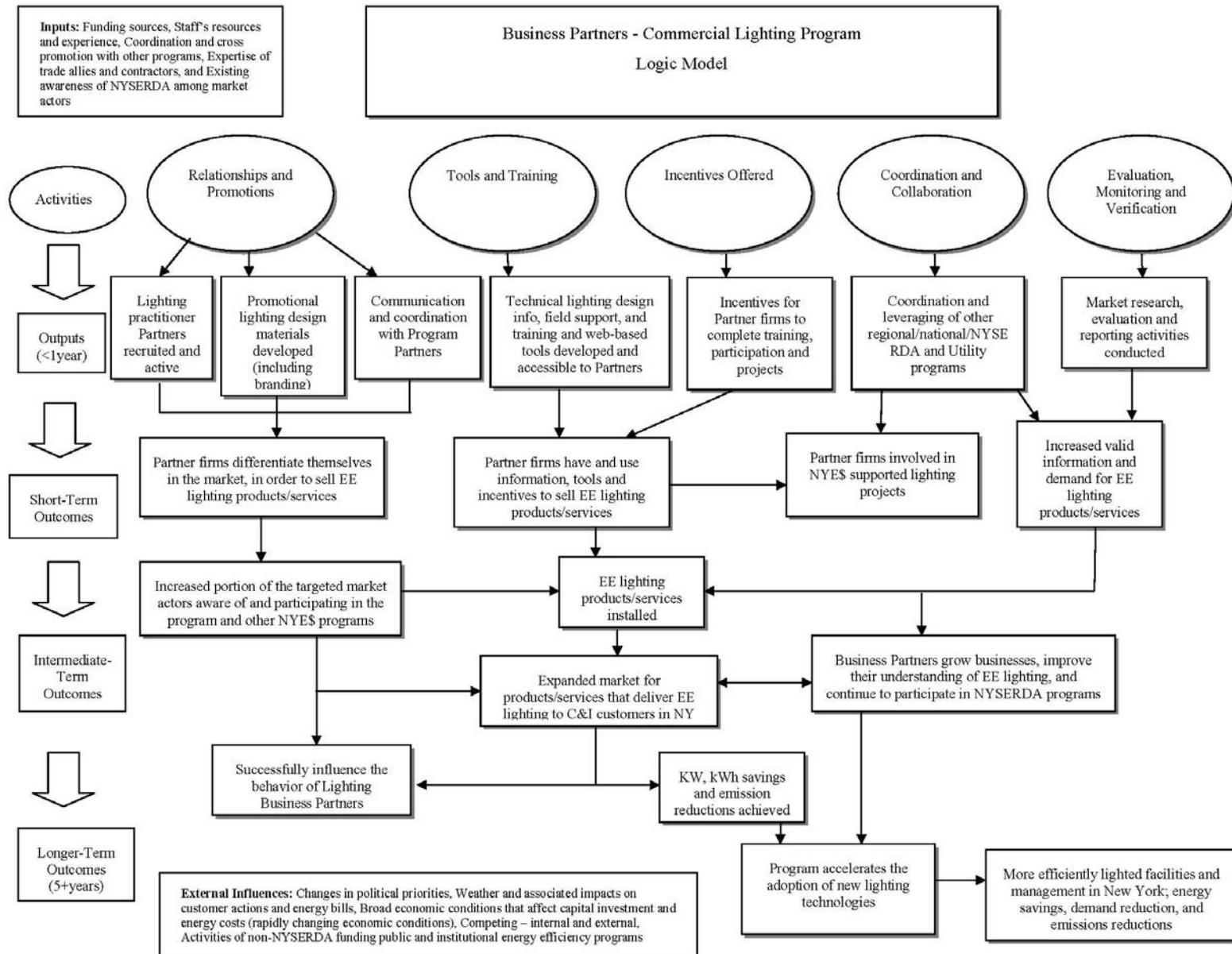
help or hinder the achievement of anticipated outcomes. Key program inputs and potential external influences are presented in Table 8.

Table 8 –Program Inputs and Potential External Influences

Program Inputs
<p>SBC funding and other funding sources (including Green Jobs/Green NY)</p> <p>NYSERDA’s program staff resources and prior experience implementing SBC-funded programs</p> <ul style="list-style-type: none"> • NYSERDA’s credibility and relationships with key stakeholders and policy makers • Staff experience implementing the New York Energy \$martSM Programs • NYSERDA’s and program staff’s market knowledge and existng relationships with key firms <p>Coordination and cross promotion with other NYSERDA programs</p> <ul style="list-style-type: none"> • Business Partners Motors Program • Business Parnters Building Performance and HVAC Program • Energy Smart Focus Program • Other NYSERDA customer incentive programs <p>Expertise of trade allies and contractor</p> <ul style="list-style-type: none"> • Regioal / National program staff and contractors • Program Partners • Core Service program implementation contractors (currently supplied by ICF) <p>Existing awareness of NYSERDA among market actors</p> <ul style="list-style-type: none"> • NYSERDA’s ability to recruit effective partners
External Influences and Other Factors
<p>Changes in political priorities</p> <ul style="list-style-type: none"> • Perceptions of energy and global climate change issues • Codes and standards • Federal energy policies including energy related tax credits and the Federal Energy Policy Act of 2005 • State and local action & requirements <p>Weather and associated impacts on customer actions and energy bills</p> <p>Broad economic conditions that affect capital investment and energy costs (rapidly changing economic conditions)</p> <ul style="list-style-type: none"> • Energy prices and regulation (changes in fuel and energy prices and rate structures) • Changes in utility rate structures • Perceptions of the value of “green” building and LEED • Activities of public and institutional purchasers and projects <p>Costs, performance and availability of more efficient technologies</p> <p>Competing – internal and external</p> <ul style="list-style-type: none"> • Internal – demand-side customers competing priorities • External – broad market and demand for provisions and supply of lighting technolgies and services • Competition among target market firms and contractors that affect willingness to promote energy efficiency • Other service organizations investments and commitments to energy efficiency, demand response, or renewable energy <p>Activities of non-NYSERDA funding public and institutional energy-efficient programs (lighting)</p> <ul style="list-style-type: none"> • Regional / National Programs • Utilities (See Section 2.3) <p>ARRA</p> <ul style="list-style-type: none"> • Federal Tax Credits

4 PROGRAM LOGIC MODEL DIAGRAM

The following page presents a logic model diagram for NYSERDA's Business Partners: Commercial Lighting program. This diagram shows the linkages between activities, outputs and outcomes, and identifies inputs and potential external influences. The diagram highlights key features of the program and is at a slightly higher level than the tables in this report, aggregating some outcomes, in order to provide a logic model that is easier to read. (Evaluation research should use the more detailed tables, in addition to the diagram, to examine the anticipated linkages and performance through the various outcomes.)



5 OUTPUTS, OUTCOMES AND ASSOCIATED MEASUREMENT INDICATORS

It is important to distinguish between outputs and outcomes. For the purposes of this logic document, outputs are defined as the immediate results from specific program activities. These results are typically easily identified and can often be counted by reviewing program records.

Outcomes are distinguished from outputs by their less direct (and often harder to quantify) results from specific program activities. Outcomes represent anticipated impacts associated with NYSERDA's program activities and will vary depending on the time period being assessed. On a continuum, program activities will lead to immediate outputs that, if successful, will collectively work toward achievement of anticipated short, intermediate and long-term program outcomes.

The following tables list outputs (Table 9) and outcomes (Table 10), taken directly from the logic model and associated measurement indicators. For each indicator, a proposed data source or collection approach is presented. When required, the need for baseline data is also noted. Items in these tables should be prioritized and subsequently considered as potential areas for investigation as part of a formal program evaluation plan.

Table 9 – Outputs, Associated Indicators and Potential Data Sources

Outputs (<1 year)	Indicators	Data Sources and Potential Collection Approaches
Outputs from Relationships and Promotions Activities		
Unified lighting branding developed for Lighting Business Partners	Existence of brochures or other collateral pieces with uniform look/brand	Program records, review of collateral for each market
Promotional material developed for target markets	Number of target markets with marketing materials designed specifically for them	Program records, review of collateral for each market
Targeted market actors recruited and working with NYSERDA	Number, type and location of market actors/firms from each of the targeted markets partnering with NYSERDA	Program records
Targeted firms active in one or more projects	Number, type and location of active projects	Program records
Communication established to ensure Partner firms are aware of other New York Energy \$mart SM programs	Types of communications established	Interviews with NYE\$ program staff Review of Program records
Lighting market Partner firms connect to other NYE\$ programs	Change in Partner firms' awareness of other relevant NYE\$ programs (by program)	Interviews with NYE\$ program staff Survey of Partner firms
Lighting program/incentive strategy changes communicated to Partner firms	Number of partner firms aware of latest Business Partner program details	Survey of Partner firms
Outputs from Tools and Program Training		
Analysis tools available to assist Lighting Partners in their projects	Number ad types of electronic analysis tools available	Program records
Web-based information accessible	Information and types of content available on the Business Partners website	Program records
Lighting Business Partners training and technical information developed	Number, types and location of Partner firms attending trainings	Program records
Field Support available to assist Lighting Partners in their projects	Number, type and location of field support being offered	Program records
Outputs from Incentives Offered		
Incentives offered to encourage Lighting Partner firms to complete training, participation, and projects	Number types and location of firms receiving incentives for different activities (by location and type of incentive)	Program records
Outputs from Coordination and Collaboration Activities		
Program coordination and leverage from other Regional/National/NYSERDA and Utility programs	Number , type and location of coordination and collaborative efforts with other NYSERDA programs Number, type and location of firms involved/referred to in other NYE\$	Program records Review of materials from each coordination and/or collaborative effort

Outputs (<1 year)	Indicators	Data Sources and Potential Collection Approaches
	programs Number and type of coordination and collaborative efforts with other National/Regional programs Number and location of utility referrals	
Outputs from Evaluation, Monitoring and Verification Activities		
Market research, evaluation and reporting activities conducted	Number and type of market research Number and type of reports generated and associated results/findings	Program records Data assessment Monitoring and evaluation efforts from program data On-site evaluations

Table 10 – Program Logic Model Outcomes

Outcomes	Indicators	Data Sources and Potential Collection Approaches
Short-Term (1-3 years)		
Lighting Partner firms differentiate themselves in the market	Number and types of marketing materials for Partner firms that reference energy efficient products and services more often than prior to their participation and than their non-participating competitors	Survey of Partner firms Survey of market actors in target market sectors
Lighting Partner firms sell more energy efficiency products/services	Market for energy efficient services and products increase over time, Partner firms have greater market share of energy efficient services and products	Market study of EE products and services and Partners share
An increasing portion of the targeted market actors are aware New York Energy \$martSM programs.	Change in number and types of market actors’ aware of Partner firms, market actors aware of NYE\$ programs from contacts with Partner firms	Survey of market actors in target market sectors or in contact with target market sectors
Lighting Partner firms involved in projects supported by other New York Energy \$martSM programs.	Number and types of other NYE\$ programs whose projects include lighting Partner firms as part of project team, lighting products and services from Partner firms are identified in other NYE\$ program projects	NYE\$ project tracking database; verification/inspection results
Lighting Partner firms have improved access to information needed to sell energy efficiency products/services.	Change in the number of Partner firms aware of Business Partners information and branding materials, change in number of Partner firms reporting that this information is effective in selling products and services, by firm type and location	Survey of Partner firms
Lighting Partner firms have improved tools needed to sell energy efficiency products/services.	Change in the number of Partner firms that have and use Business Partners tools, change in number of Partner firms reporting that these tools are effective in selling products and services, by firm type and location	Survey of Partner firms
Lighting Partner firms have improved incentives and awards needed to sell energy efficient lighting products/services	Change in the number of Partner firms receiving incentives, amount and types of incentives and awards given out, by type and location. Change in number of Partner firms that say these incentives are effective in selling products and services, by type and location	Survey of Partner firms
Valid information and demand for EE lighting products/services increases	Increased demand for energy efficient lighting products and services in the market, Partner firms report increased demand, by firm type, product/service and location	Survey of Partner firms
Energy efficient lighting products installed and services sold by Partners	Increase in energy efficient products and services in the market, Partner firms report increased sales, Partner firm customers report increased interest in EE products and services, by type and location	Survey of market actors in target market sectors Survey of Partner firms Survey of Partner firms’ cusotmers

Outcomes	Indicators	Data Sources and Potential Collection Approaches
Intermediate-Term (3-5 years) Outcomes		
Lighting Partner firms increase capacity to deliver quality energy efficiency products/services	Change in number of Partner firms reporting increased customer interest and sales for energy efficient products and services, by type and location	Survey of Partner firms with care to address attribution (or combined across NYSERDA and utility efforts)
Lighting Partners able to grow their businesses	Change in number of Partner firms reporting growth at a higher rate than other target market sector firms or than other commercial firms in NY, by firm type and location	Survey of target market sector firms Survey of business growth in NY
Lighting Partners demonstrate improved understanding of energy efficiency	Change in number of Partner firms expressing competence in energy efficiency and having ability to train own staff in energy efficiency, by firm type and location	Survey of Partner firms
Lighting Partners continue to participate in NYE\$ programs	Change in number and frequency of Partner firms products and services participating in other NYE\$ programs, by firm type, location, product/service and other program element	NYE\$ project tracking database; verification/inspection results
Expanded market for products and services that deliver energy efficiency lighting to C&I customers in New York	Change in the market share of energy efficient lighting products and service, by type and location	Market share study of EE products and services for target market sectors
KW, kWh, savings and emissions reductions	Increased savings and emissions reductions from products and services promoted by partner firms, by firm type, measure type and location	Impact evaluations
Successfully influence the behavior of Lighting Business Partners	Change in the number of commercial lighting Business Partners decisions influenced by program, by firm type and location and spillover impacts (both participant and non-participant)	Surveys of Partner firms broader market assessment Program tracking database and records
Long-Term Outcomes (5+ years)		
Adoption of new lighting technologies accelerated	Increase in the adoption rate of new technologies, by technology and firm type and location	Surveys of Partner firms and broader market assessment
More efficient facilities and management in New York	Lower energy utilization index (EUI) for NY buildings, by building type and location	Studies of energy usage by NY buildings
Persistent energy savings, peak demand reduction, and emissions reductions	Energy savings, demand reduction emissions reductions	Studies of energy usage by NY buildings

6 POTENTIAL RESEARCHABLE ISSUES FOR EVALUATION

Based on this program logic model assessment for NYSERDA’s Business Partners: Commercial Lighting Program, a number of researchable issues have been identified and are noted below. These can be investigated through NYSERDA evaluation activities.

1. Are the outreach efforts, promotional materials and recruitment methods effective? What methods are most effective for the different targeted lighting firms?
2. What types of Business Partners are participating? Have Energy Service Companies (ESCOs) and Interior Designers, two Business Partners added in 2009, been successful in the program?
3. What type of communication is most effective in aiding Lighting Partner firms? Does this vary by market segment?
4. How effective is the Lighting Partner? How effective is branding and what impact has it had in the market?
5. What types of tools and training do Lighting Partner firms want or need in order to be more effective in the market place? Does this vary by market segment?
6. What is the most effective field support strategy for Lighting Partner firms?
7. What type of web-based tools are the most effective for Lighting Partner firms?
8. How have the increase or change in incentive levels and awards affected the market?
9. Do the bonus incentives increase program participation? What percentage of firms receive bonus incentives?
10. What type of coordination and leveraging with other Regional/National Programs is most effective for Lighting Partner firms?
11. Are Lighting Partner firms participating in additional NYE\$ programs? Which ones?
12. What types of lighting products and services are installed and in what market sectors?
13. What are the most effective ways that Lighting Partner firms differentiate themselves in the market?
14. What are the characteristics of Lighting Partner firms that are effective in expanding the energy efficiency lighting market?
15. How do non-Partner firms respond to Lighting Partner firm success? How does that affect the energy efficiency market?
16. To what extent have Lighting Business Partners' businesses grown?
17. To what extent has the program successfully influenced the behavior of Lighting Business Partners?
18. Has the Program seen an interest in the larger building market with the increased eligibility of 100,000 square feet?
19. To what extent has the Program accelerated the adoption of new lighting technologies?
20. Are the feedback (communication) mechanisms in the market positive and supportive for growth in the market?
21. What are the future implications for energy-efficient C&I lighting technologies? What future technologies will impact the market?

Research addressing these questions will help to validate the reasonableness of the associated theories and will help inform NYSERDA program staff of progress and potential areas for program enhancement and refinement.