

GREEN JOBS - GREEN NEW YORK

OPERATING PLAN FOR PROGRAM EVALUATION

I. Overview

A. Purpose of the Plan

The Green Jobs - Green New York Act requires the New York State Energy Research and Development Authority (NYSERDA) to report on the “overall efficiencies, progress, and outcomes related to the Green Jobs - Green New York Program.” In addition, such report is required, at a minimum, to include (a) key findings by the authority; (b) to the extent possible a calculation of the energy savings achieved; and (c) any recommendations for program improvements and expansion of the program. The Green Jobs - Green New York (GJGNY) Evaluation Operating Plan outlines NYSEDA’s evaluation activities to satisfy these statutory requirements. This Evaluation Operating Plan presents a high-level description of the methods that will be implemented to assess the status of activities and outcomes associated with the programmatic goals set forth in the Act. Upon finalizing this Evaluation Operating Plan, NYSEDA will develop detailed evaluation plans that will describe, in depth, the specific evaluation activities planned for each GJGNY program area.

B. Background and Requirements of the Legislation

On October 9, 2009, Governor David Paterson signed into law the Green Jobs - Green New York Act of 2009 (A.8901/S.5888 and chapter amendment A.9031/S.6032). The Act directs NYSEDA to establish and administer the GJGNY program within six months of the effective date of the Act. NYSEDA is directed to implement the program in consultation with the Division of Housing and Community Renewal (DHCR), Department of Labor (DOL), Office of Temporary and Disability Assistance (OTDA), Department of Public Service (DPS), Power Authority of the State of New York (NYPA), Department of Economic Development (DED), and the Department of Environmental Conservation (DEC). The program is funded with \$112 million from the proceeds of selling CO₂ allowances under the Regional Greenhouse Gas Initiative (RGGI).

The legislation directs NYSEDA to:

- Provide energy audits and establish a revolving loan fund to provide loans to finance the cost of approved qualified energy efficiency services recommended in energy audits for residential, multi-family, and non-residential structures;
- Pursue the feasibility of other innovative financing mechanisms, such as on-bill financing and Property Assessed Clean Energy (PACE);
- Issue one or more competitive opportunities to solicit applications from partnerships or consortia comprised of constituency-based organizations which can connect community members to the program;

- Establish standards for energy audits based on building type and other relevant considerations;
- Establish a schedule of fees for energy audits that may include discounted fees for small businesses or not-for-profit corporations with ten or fewer employees;
- Enter in contracts to provide employment and training services to support the GJGNY program;
- Establish an Advisory Council; and
- Provide annual reports to the Governor, Senate, and Assembly.

II. Planning Process

The GJGNY Program has been developed with significant input from interested parties and stakeholders.

A. Advisory Council

The legislation calls for NYSERDA to establish an Advisory Council to advise the Authority on program design and implementation. As directed by the Legislature, the GJGNY Advisory Council will consist of: 1) the President of NYSERDA; the Secretary of State; the Commissioner of Housing and Community Renewal; the Commissioner of Labor; the Commissioner of Temporary and Disability Assistance; the Chair of the Consumer Protection Board; the Chair of the Department of Public Service; the President of the Power Authority of the State of New York; the President of the Long Island Power Authority; the Commissioner of Economic Development; the Commissioner of Environmental Conservation; or the designees of such persons; and 2) representatives of Constituency-based Community Groups, and Consumer Advocates on utility and housing issues; Community-Based Workforce Development Groups; Unions, including Building Trades and Property Services; Home Performance Contractors; Large-Scale Construction Contractors; and Investment Market Experts. The President of NYSERDA shall serve as Chair of the Council. The Advisory Council input has been incorporated into this Plan.

B. Working Groups

NYSERDA has established six distinct Working Groups to address specific areas of focus in the development of GJGNY. These various Working Groups include representatives of interested parties and stakeholders. These representatives are providing advice regarding the development of the Operating Plans in each of the following areas of focus:

- Workforce Development
- Small Homes
- Multifamily
- Small Business/Not-for-Profit
- Finance
- Outreach and Marketing

A list of Working Group members is included as Appendix A.

III. GJGNY Goals & Strategies

As defined in the legislation, the purpose of the GJGNY Program is to:

- promote energy efficiency, energy conservation and the installation of clean energy technologies;
- reduce energy consumption and energy costs;
- reduce greenhouse gas emissions;
- support sustainable community development;
- create green job opportunities, including opportunities for new entrants into the state’s workforce, the long-term unemployed and displaced workers; and
- use innovative financing mechanisms to finance energy efficiency improvements through energy cost savings.

Thus, the GJGNY evaluation activities shall focus on the overall effectiveness, progress, and outcomes related to these Program activities. Reported results shall include but not be limited to: key findings; calculated energy savings, to the extent possible; and recommendations for program improvement and expansion. The legislation authorizes NYSERDA to spend up to 5% of total GJGNY funding to evaluate the effectiveness of the Program.

IV. Budget

The overall proposed budget for the GJGNY Program, including a 5% allocation for program evaluation, is presented in the table below.

| Green Jobs Green New York Total Proposed Budget | |
|--|----------------------|
| Element | Budget |
| Workforce Development | \$8,000,000 |
| Outreach & Marketing | \$10,000,000 |
| Residential ¹ | \$39,288,533 |
| Multifamily ¹ | \$15,692,550 |
| Small Commercial ¹ | \$23,674,917 |
| Program Administration | \$7,840,000 |
| Program Evaluation | \$5,600,000 |
| NYS Cost Recovery Fee | \$1,904,000 |
| Total | \$112,000,000 |

¹May include use of funds for interim loan financing, credit enhancement or reserves for loans securitized and sold to leverage additional funds from capital market investors, and support for overall financing subsidies to cover difference between borrower loan interest rates and costs of financing.

NYSERDA plans to use the evaluation funding to provide reliable and rigorous evaluations of the most important metrics across the GJGNY Program. Although the evaluation budget for the GJGNY portfolio is set at up to 5%, evaluation funding for individual programs will be allocated based on the needs of each program, and opportunities to leverage other evaluation efforts when possible. Of the total evaluation budget allocated to GJGNY, a large majority will support

the work of independent contractors, but a small portion will be reserved to fund NYSERDA's internal staffing and management of the evaluation effort.

V. Evaluation Goals and Implementation Approach

This Evaluation Plan describes NYSERDA's approach to evaluate the GJGNY Program against the Program's stated goals and in compliance with the enabling legislation. Evaluation activities are designed to assess the effectiveness, progress, and outcomes related to the Program, including highlighting key findings, calculating estimated energy savings and jobs impacts, and providing programmatic recommendations. Independent, expert evaluation contractors managed by staff in NYSERDA's Energy Analysis department will conduct evaluation planning and implement the activities outlined at a high level in this plan.

The overarching goals of NYSERDA's program evaluation efforts are to: (1) conduct credible and transparent evaluations, and (2) provide the New York State Legislature, the GJGNY Advisory Council, NYSERDA program staff and managers, and Program stakeholders with timely and unbiased information regarding program implementation. In addition, where the evaluation examines energy savings impacts of the GJGNY Program, these evaluations will be conducted in a manner that supports the inclusion of the verified energy savings toward New York's overarching 15x15 energy efficiency goal.^{1,2}

As evaluation activities are implemented, NYSERDA and its evaluation contractors will monitor program progress and make adjustments to this evaluation plan, as necessary, to provide the most relevant and useful evaluation. As such, NYSERDA views this plan as a flexible, living document that will be updated, as necessary, with appropriate notice to interested parties, including the Advisory Council.

NYSERDA has been responsible for conducting evaluation for various clean energy and energy efficiency public benefit programs since 1998 and, over the past twelve years, has established a highly efficient and effective evaluation process that is expected to provide a solid basis for the evaluation needs of the GJGNY program. NYSERDA aims to achieve credible findings that conform to industry standards and best practices, meet acceptable sampling precision levels while reducing evaluation bias, and are transparent in terms of reporting the methodologies used. NYSERDA and its evaluation contractors follow the American Evaluation Association's *Guiding Principles for Evaluators*, which calls for systematic inquiry, competence, integrity and honesty, respect for people, and responsibility for general and public welfare.³

¹ The 15x15 goal refers to New York's goal to reduce electricity consumption 15% from forecasted levels by the year 2015. This goal was originally stated in Governor Paterson's 2008 State of the State address; the New York State Public Service Commission (PSC) has formally adopted this target goal its Energy Efficiency Portfolio Standard proceeding, Case 07-M-0548 with respect to PSC jurisdictional activities.

² Evaluation guidelines to support this goal are described in the following document developed by the New York State Department of Public Service in August 2008: http://www.dps.state.ny.us/Evaluation_Guidelines.pdf

³ American Evaluation Association (AEA), *Guiding Principles for Evaluators*, www.eval.org. See source for a full explanation of these guiding principles.

Since NYSERDA was first directed to evaluate public benefit programs more than a decade ago,⁴ internal staff within its Energy Analysis unit have been assigned to conduct analyses and manage external contractor activities related to the evaluation effort. Within NYSERDA, the Energy Analysis unit is organizationally separate from other units whose staffs perform project and program management functions related to implementation and administration of the programs.

NYSERDA has a long history of working closely with nationally recognized, independent contractors to conduct evaluations of its programs. NYSERDA has relied upon these contractors to measure and verify program savings; establish attribution, including assessing free-ridership and spillover; evaluate the efficiency and effectiveness of program processes; develop program theory and logic models; and conduct market characterization and assessment studies. NYSERDA's evaluation planning process has ensured that the most important and significant metrics have been closely and regularly examined by these independent consultants. Use of independent, external consultants with a reputation for credible, high-quality, and unbiased work has served decision makers and stakeholders well and is expected to continue. NYSERDA's evaluation contractors were competitively selected by a team of external, independent contractor teams and provide valuable services including:

- Portfolio- and program-level evaluation planning.
- Evaluation design, including sampling plans, researchable questions, survey instruments, and analytic approaches.
- Evaluation implementation, including conducting site visits, telephone surveys and interviews, data entry, and data analysis independent from NYSERDA Energy Analysis staff and consistent with industry best practices.
- Detailed evaluation reporting and presentations.
- Assistance with implementing evaluation recommendations.
- Regular progress reporting to NYSERDA evaluation staff on ongoing and completed work efforts, issues requiring attention, and next steps.

VI. Evaluation Areas

To afford the GJGNY evaluation program with the efficiency and consistency of NYSERDA's current evaluation structure, this structure will remain in place, with some minor modifications, and will be expanded to serve the GJGNY evaluation needs. This structure consists of four main areas –Market Characterization and Assessment, Process Evaluation, Impact Evaluation and Survey Data Collection.

Market Characterization and Assessment

The objectives of market characterization are: (1) to develop a comprehensive understanding of current and emerging markets, market structures, and market actors and (2) to provide baseline and background information to enable NYSERDA to define, deliver, and evaluate programs for these target markets. The objective of market assessment is to track changes in markets over time with a specific focus on market indicators that are likely to be impacted by program offerings.

⁴ State of New York Public Service Commission, Opinion No. 98-3, Case 94-E-0952, In the Matter of Competitive Opportunities Regarding Electric Service, *Opinion and Order Concerning System Benefits Charge Issues*, Issued and Effective January 30, 1998.

Market Characterization and Assessment (MCA) evaluation collects and compiles descriptive data on the markets served or targeted by a program and describes and quantifies the various market actors and end users involved and their roles in decision making. A first step in evaluating programs is the development of a program logic model. Using the program logic model, MCA evaluation sets market progress indicators and collects time-series measurements of those indicators to determine the effectiveness of the program in transforming or developing markets for energy efficiency.

Process Evaluation

The objectives of process evaluation are to: (1) review program oversight and operations; (2) gauge customer satisfaction; and (3) provide recommendations for program and process improvements and efficiency. Process evaluation is designed to assess program design, delivery, and implementation. It is also used to identify opportunities for program improvement and track program progress.

Primary data collection is generally used to assess the effectiveness of the program delivery mechanism from the position of the program delivery contractors, program customers, trade allies, and other key stakeholders. Sometimes process evaluation is conducted in conjunction with MCA studies depending on the timing of the studies and the issues being assessed.

Impact Evaluation

The objectives of the impact evaluation are to: (1) determine program outcomes by evaluating energy and non-energy impacts that are attributable to the programs; (2) compare program outcomes to program goals, and (3) assess cost-effectiveness of programs. Impact evaluation involves measurement and verification of impacts and benefits attributable to the program, including an assessment of key non-energy impacts.

NYSERDA relies on a range of approaches to evaluate gross and net energy and demand savings impacts. Industry standard approaches for evaluating gross savings include using deemed savings, on site measurement and verification, and large-scale analysis of utility consumption data.⁵

Where impact evaluation involves calculating energy savings from program activities, NYSERDA aims to comport with the evaluation guidelines put forth by the NYS Department of Public Service for its Energy Efficiency Portfolio Standard so that the evaluated energy savings can be counted on an equivalent platform as other activities for contribution toward New York's 15x15 goal.⁶ Specifically, where sampling approaches are used to evaluate energy savings, the goal will be to achieve 90/10 sampling precision where practical and cost effective to do so. At this level, one can be 90 percent confident that the measured value is within +/- 10 percent of the reported value based on the sampling techniques. Whether 90/10 sampling precision is practical and cost effective will be at the discretion of NYSERDA and its evaluation contractors.

Impact evaluation also includes an examination of job creation/retention. Historically, for the SBC programs, NYSERDA has conducted macroeconomic impact analysis to assess net job creation and other economic effects of program expenditures on energy efficiency. As the program plans are finalized, options for analyzing this key metric along with other metrics such

⁵ National Action Plan for Energy Efficiency, *Model Energy Efficiency Program Impact Evaluation Guide*, 2007.

⁶ These guidelines can be found at: http://www.dps.state.ny.us/Evaluation_Guidelines.pdf.

as carbon-emission reductions will be further explored and the specific approach will be identified.

Survey Data Collection

Survey data collection includes the design of data collection and sampling approaches and large-scale survey implementation, as needed, for all of the above evaluation areas.

When primary research is conducted with program participants or other market actors, NYSERDA generally strives to meet 90/10 confidence/precision levels where appropriate.⁷ Primary research is coordinated, to the extent possible, across the impact, process and MCA evaluation activities. This coordination is intended to reduce respondent fatigue, exercise economies of scale, and eliminate duplication. Confining all major survey data collection activities under one umbrella will ensure consistency in approach to sampling design, data collection approach, quality control/assurance, and data documentation.

VII. Preliminary GJGNY Program Evaluation Plans

Some important details of the GJGNY programs are still under consideration and several program operating plans are yet to be formally approved. In light of currently available information on the program plans, operations, goals and timing, this section describes the specific evaluation activities that may be conducted for each of the GJGNY program elements. As GJGNY program plans are finalized, NYSERDA will further define evaluation approaches that are most appropriate given overall evaluation priorities and available resources. Detailed evaluation plans and work plans will be developed in the near future for each program. The approach will be developed by NYSERDA's evaluation contractors in cooperation with evaluation and program staff. The GJGNY Advisory Council will be kept apprised of the evaluation plans and activities as they develop and are implemented.

Several programs in the GJGNY portfolio provide services that meet specific needs of underserved populations or serve as feeder programs for other incentive offerings that are available to assist customers. Where projects receive GJGNY audits or loans as well as incentives from other NYSERDA programs, evaluation will be coordinated across programs and funding sources. Such coordination will lead to enhanced efficiency of the evaluation, and will ensure the evaluation is minimally burdensome to program participants. In cases where ongoing NYSERDA **New York Energy Smart**SM/EEPS program evaluations will be expanded to cover the GJGNY Program, existing detailed evaluation plans will be updated to reflect these plans.

While it is hypothesized that GJGNY audits and loans will serve unmet needs and lead to greater adoption of energy efficiency measures, and the evaluation will test this hypothesis, it may not be possible for impact evaluation to separate out the specific effect that these GJGNY interventions had on the ultimate energy savings attributable to the project. However, impact, process and MCA studies will attempt to ascertain whether the GJGNY interventions added to or enhanced the overall outcomes and impacts. In this regard, designing a baseline or comparative

⁷ Process evaluation is usually based on qualitative, in-depth interviews. Therefore, the confidence/precision levels may only apply to a small portion of this work. Where confidence/precision levels do apply, they will be determined for the entire survey effort, assuming a 50/50 proportion.

assessment of program performance prior to or with/without influence of GJGNY funding will be an important first step in the overall evaluation. Recognizing that the GJGNY Program is also expected to have a positive impact on activity levels in non-NYSERDA programs, NYSEDA's evaluation of GJGNY will also attempt to identify these effects, where possible. This may be accomplished by coordinating evaluation efforts with other program administrators or through market actor surveys conducted as part of the NYSEDA evaluation effort.

Most of the evaluation functions and the specific GJGNY Program assessments described in the following sections include elements that will help examine the extent to which the Program is supporting sustainable community development. The evaluation effort will also provide information on this key program goal.

A. GJGNY Financing

The legislation authorizes NYSEDA to establish a revolving loan fund to finance qualified energy efficiency services and allows NYSEDA to establish the term and structure of loans offered as deemed appropriate, subject to maximum loan amounts of \$13,000 per applicant for residential structures (four or fewer dwelling units), \$26,000 per applicant for non-residential structures (small commercial/not-for-profit facilities), and amounts as determined by NYSEDA for multifamily structures (five or more dwelling units).

The objective of the GJGNY Financing initiative is to offer three types of loans:

- unsecured loans
- loans to be repaid through property tax assessments of participating municipalities (assuming amendments to the Municipal Sustainable Energy Loan Program authorizes municipalities to enter into agreements with NYSEDA and use funding provided by NYSEDA)
- loans where the consumer repays the obligation through an on-bill utility charge (initially through a pilot program that is being developed with National Grid and that may later be expanded to include other utilities)

Customer interest in, and the ultimate effectiveness of these loan products will be the focus of the evaluation activities described below. In particular, process evaluation and market characterization and assessment (MCA) evaluation will serve primary roles in assessing this program area.

Market Characterization and Assessment

A program theory and logic model will be developed early in the evaluation of the GJGNY program to identify key program indicators of success. Using the information identified through the program theory and logic modeling exercise, MCA studies will be designed to address progress toward those key indicators of success. Initial research questions and areas of inquiry, which will be further defined or expanded upon during evaluation planning for the Finance program include:

- Initial awareness and understanding of the available GJGNY program loan offerings among eligible customers as well as the financial community.
- Influence of the GJGNY financing options on customers' ultimate energy efficiency decision making.
- Measuring other near and long term indicators of program success.

By developing an understanding of the overall influence of the GJGNY Financing options on customer decision making the MCA evaluation will also be informative to the impact evaluation described below.

Process Evaluation

Key process evaluation issues are preliminarily identified within this section for the GJGNY Financing program. As the Finance Operating Plan is approved and the evaluation efforts commence, additional issues may be identified for examination. Initial research questions and areas of inquiry include:

- Customer satisfaction with GJGNY program interaction and financial assistance offered
- Customer response to, and interest in, the various finance options and rates offered by the Program.
- Effectiveness of the GJGNY financing options in fostering a higher incidence of measure installations recommended through audits.

Impact Evaluation

The impact evaluation approach and level of effort for the Financing program will depend on the finalization and approval of the Operating Plan which may include combinations of GJGNY loans with other NYSERDA- or utility-funded incentive or audit programs. The impact evaluation approach for this program area will be determined once final program decisions have been made.

B. Workforce Development

For the workforce development and training initiative, the objectives are to:

- Develop training and certification standards for the small commercial sector;
- Assist workers in completing required certifications for entry into the workforce, and support contractor firms and other employers through integrated internships, apprenticeships, and other forms of On-the-Job training as these firms seek to employ experienced and newly certified workers;
- Leverage the development and use of national credentials to help ensure minimum performance standards and quality assurance for all work completed under the GJGNY Act;
- Provide workers with the basic skills needed to successfully meet the requirements of the GJGNY objectives; and
- Create job opportunities, focusing on the long-term unemployed and displaced workers as well as new workforce entrants.

Process Evaluation and Market Characterization and Assessment

The GJGNY Workforce Development process and MCA evaluation activities will attempt to address the training efforts and their impacts using best practice approaches that assess training effectiveness. Best practice evaluations of work force training efforts should be grounded in

Kirkpatrick's four levels of evaluation for assessing training effectiveness^{8, 9}. The four levels involve an assessment of:

- response of the trainee to the training.
- what was learned.
- performance in the workplace.
- effects of the training on the workplace.

Evaluation of the GJGNY Workforce Development program will be closely coordinated with NYSERDA's evaluation of the EEPs-funded Workforce Development Program, an already-completed New York State Department of Labor's (NYSDOL) study, as well as upcoming NYSERDA and NYSDOL studies.¹⁰ The GJGNY evaluation efforts will leverage and build upon these studies to better understand audience motivators and drivers, and to determine the challenges, opportunities, and barriers associated with accomplishing GJGNY WFD Program objectives.

In addition, the Process and MCA evaluation may also administer pre/post surveys and interviews with trainees in order to assess perceptions of training and ascertain the interest and ability of trainees to enter the workforce based on the training supplied by the program. The Process and MCA evaluation activities may also assess long-term effects by attempting to examine the performance, retention, and other effects of the GJGNY training in the workplace.

Impact Evaluation

Impact evaluation is not planned for the WFD Program. However, energy savings impacts resulting from workforce training efforts can be examined through evaluations conducted on the associated end-use programs, particularly on how improved training and workforce capabilities have resulted in improved outcomes for these programs.

C. Small Business/Not-for-Profit, Multifamily, Small Homes

The purpose of the Small Business/Not-for-Profit, Multifamily, and One- to Four- Family (Small Homes) components of GJGNY is to:

- promote energy efficiency, energy conservation and the installation of clean energy technologies in each respective sector;
- reduce energy consumption and energy costs;
- reduce greenhouse gas emissions;
- support sustainable community and economic development; and
- create green job opportunities.

⁸ Kirkpatrick, D. *Techniques for Evaluating Training Programs*. Journal for the American Society of Training Directors, 13. 21-26, (1959b).

⁹ Kirkpatrick, J.; Kirkpatrick, W. *The Kirkpatrick Four Levels: A Fresh Look After 50 Years*, (2009).

¹⁰ The work scope for the DOL study can be found at:

<http://www.labor.ny.gov/workforcenypartners/pdfs/sesp.pdf>. As the GJGNY evaluation and this study progress, NYSERDA will coordinate further discussion with DOL to ensure optimal coordination.

Given the similar issues that need to be considered in planning evaluation of these three program components, initial evaluation plans are presented together within this section and will be further defined and developed upon approval of this Evaluation Operating Plan.

Market Characterization and Assessment

A program theory and logic model will be developed early in the evaluation to identify key program indicators of success. Using the information identified through the program theory and logic modeling exercise, MCA studies will be designed to address progress toward those key indicators of success. Initial research questions and areas of inquiry include:

- Awareness and understanding of the GJGNY program among eligible customers.
- Identifying market actors critical to successful program implementation (e.g., identifying “gaps” in market actor participation).
- Understanding customer decision making regarding GJGNY program areas.
- Measuring other near and long term indicators of program success.

The MCA evaluation will assist with understanding the overall influence of these program areas in customer decision making and, ultimately, project activity and, in this capacity, will also be informative to the impact evaluation described below.

Process Evaluation

Key process evaluation issues are preliminarily identified within this section for Small Business/Not-for-Profit, Multifamily, and Small Homes (One-to Four-Family) programs. As the program operating plans are approved and the evaluation efforts commence, additional issues may be identified for examination through process evaluation. Initial research questions and areas of inquiry include:

- Examining customer satisfaction with GJGNY program interaction and assistance offered from project inception to completion.
- Assessing the effectiveness of using the Building Performance Institute (BPI) for accreditation and the capacity of BPI to build the contractor infrastructure to sufficiently meet the demand of the GJGNY initiatives.
- Using information gained through the aggregator pilot, assessing which approach best provides the anticipated benefits, including predictable workload and cost efficiencies for home performance contractors, potential economies of scale for home owners, and greater community development benefits.
- Assessing impacts of the Program’s potential development and application of standards (e.g., hiring, training, employment, wages, etc.), or lack thereof, on the ability of businesses to enter the energy efficiency market and be competitive.
- Comparing the various approaches of conducting energy audits in the programs.

Impact Evaluation

The impact evaluation approach and level of effort for the Small Business/Not-for-Profit, Multifamily, and Small Homes (One-to Four-Family) programs will depend on the amount of coordination between these programs and other programs. Various scenarios exist for program coordination including combinations of GJGNY audits and loans with other NYSERDA- or utility-funded incentive programs. Furthermore, utility program audits could also serve as the entry point into GJGNY.

In project scenarios where only GJGNY program funding is applied, separate GJGNY impact evaluation activities will be conducted to ascertain the energy savings attributable to the program. Methods may include engineering reviews, on site metering and monitoring, billing analysis and participant/non-participant surveys, and will depend on the nature and level of energy savings expected and availability of data to support the analysis.

Where other non-GJGNY NYSERDA incentives are applied to a project, that project will be considered part of the population for the incentive program offering for evaluation purposes. Impact evaluation questionnaires for the incentive programs can be modified to assess the importance of the addition of the GJGNY audit or loan in terms of achieving the overall project impacts, and those results will be included as part of the GJGNY annual reporting.

D. Outreach and Marketing

The Outreach and Marketing effort is intended to build awareness of the program and target small businesses, not-for-profit organizations (NFPs), and residential and multifamily building owners across New York. Further, outreach and education includes building partnerships with local community based groups/organizations, identifying community partners, and conducting joint meetings to introduce GJGNY programs into the community.

For the Outreach and Marketing initiative, the objectives are to:

- Build awareness of the GJGNY Program;
- Implement research to identify opportunity segments, drivers, barriers, and messages;
- Build and grow participation in GJGNY;
 - Number of target neighborhoods/communities reached
 - Number of audit leads
 - Number of audits conducted
 - Audit conversion to retrofit projects financed and implemented
- Grow number of accredited contractors; and
- Build the pipeline of New Yorkers participating in Green Jobs training.

Process and Market Characterization and Assessment Evaluation

Key process and MCA evaluation issues are preliminarily identified within this section. As the evaluation efforts commence, additional issues may be identified for examination. Early in the evaluation, a program theory and logic model will be developed to further identify key indicators of success. Using this information, process and MCA activities will be designed to assess the progress of the program. Initial research questions and areas of inquiry include:

- Customer satisfaction with GJGNY program interaction and assistance offered.
- Effectiveness of CBOs, expeditors, or the aggregation program models at reaching new populations (e.g., small businesses, economically-challenged, etc).
- Effectiveness of CBOs, expeditors, or the aggregation program models in moving projects from the audit to the measure implementation stage, and facilitating a higher level of implementation of audit recommendations.
- The ability the Program to develop alliances with Centers of Influence (COIs) aimed at extending the GJGNY outreach and marketing activity.

- Effectiveness of the CBO model to facilitate fair and open process for BPI contractors, Energy Smart Community Coordinators, and Business Partners currently working with NYSERDA to deliver programs.

Impact Evaluation

Impact evaluation is not planned for the Outreach and Marketing Program. Rather, process evaluation and MCA evaluation will serve primary roles in assessing the outcomes and effectiveness of this program area. However, impact evaluations on the end-use customer programs, including Financing, may attempt to ascertain whether the GJGNY Outreach and Marketing had any additional influence on the market, beyond the sponsored projects.

VIII. Schedule for Implementation

Upon approval of this initial GJGNY evaluation plan, NYSERDA will begin the process of engaging its evaluation contractors to further plan and implement the evaluation. Use of current evaluation contractors, to the extent possible, will expedite the implementation of evaluation activities for the GJGNY program. The first phase of evaluation implementation will be to develop more detailed evaluation work plans, sampling design and schedules based on a more thorough review of the programs by NYSERDA's evaluation contractors. It is anticipated that these more detailed evaluation work plans, sampling plans and specific program evaluation schedules can be developed during 2010. Program logic models are also expected to be developed during 2010.

IX. Reporting

Evaluation Contractor Reports

Detailed reports presenting results from evaluation studies conducted by NYSERDA's evaluation contractors will be provided to the GJGNY Advisory Council and made publicly available via posting on NYSERDA's website upon completion. Final reports will include: methodology, key results, recommendations, summary and conclusions, and appendices with detailed documentation of data collection approach and instruments.

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

Annual GJGNY Reports

Per Section 1899 of the GJGNY Legislation, NYSERDA will prepare an annual report no later than October 1st of each year. Evaluations completed during the most recent year will be summarized in the annual report, and will be used as the basis for reporting on program outcomes, especially those related to overall effectiveness and program progress. The October 2010 annual GJGNY report will provide a status update on early evaluation implementation and development of detailed plans. The October 2011 annual GJGNY report will include initial evaluation results, where available.

Regional Greenhouse Gas Initiative Reports

NYSERDA's Energy Analysis group is also responsible for administering evaluation of the Regional Greenhouse Gas Initiative (RGGI) programs. RGGI status reports are produced quarterly and evaluation reports are produced annually. These reports are made publicly available via NYSERDA's website. RGGI funds are used to support the GJGNY program as it works toward key goals, including reducing greenhouse gas emissions and creating jobs. NYSERDA will also include impacts from GJGNY within its quarterly and annual RGGI reporting in order to capture the full effects of the RGGI funding stream, and will clearly indicate that these impacts are also reported annually to the legislature in separate GJGNY reports.

Appendix A: GJGNY Working Group Members and Organizations

A. Financing

John Ahearn, Jeff Pitkin, Ruth Horton, Marilyn Dare, Pat Fitzgerald, Luke Falk
New York State Energy Research and Development Authority

- Peter Krajsa
AFC First Financial Corporation
- David Brown IV
Change Investments Management, LLC
- Emmaia Gelman
Center For Working Families
- Anthony Belsito
Department of Public Service
- Chris Kallaher
Direct Energy
- Tom Peters
Empire State Petroleum Association
- Nancy O'Brien
Energy Finance Solutions
- Howard Banker
Energy Programs Consortium
- George McCarthy
Ford Foundation
- Henry Lanier
Forsyth Street Advisors
- Kerry Quaglia
Home HeadQuarters, Inc
- Glenn Sharpe
IQ Venture Partners, Inc.
- Dorian Dale
Long Island Green Homes
- William Codner and Jed Sabio
National Grid
- Sarah Ludwig
Neighborhood Development Advocacy Project
- Neal Parikh
NYC Office Of Sustainability
- Arlo Chase
NYS Housing Finance Agency
- Greg Hale
NRDC
- Margot Brandenburg and Brinda Ganguly
Rockefeller Foundation

B. Workforce Development

Adele Ferranti, Ruth Horton, Rhona Saffer, Vicki Colello, Kim Lenihan, Alison Neligan, Lee Butler,
Lori Clark, Kelly Tyler, Jaques Roth
New York State Energy Research and Development Authority

- Jeff Jones
Apollo Alliance
- Larry Zarker
Building Performance Institute
- Rebecca Lurie
Center for Worker Education
- Chloe Tribich
Center for Working Families
- Claudia Edwards
Community Environmental Center
- Lisbeth Sheperd
Clean Energy Corps

- Mike Bobker
CUNY BPL
- Ron Kamen
Earth Kind Energy
- Dick Kornbluth
Green Homes America
- Paula Hayes
Hudson Valley Community College
- Rick Cataldo
IBW 236
- Myles Lennon
Laborers International Union of North America
- Melinda Mulawka
NYC Workforce Investment Board
- Phil Larocque
NYS Builders Association
- Tony Joseph
NYS Department of Labor
- John Levey
Oil Heat Associates
- Jackie Gentile
Peter Young Housing Industries,
Treatment
- James Barry
SEIU Local 32BJ Thomas Shortman
Training Programs
- William Bringham
Small Business Development
Corporation
- Miquela Craytor
Sustainable South Bronx
- Virginia Carrig
Ulster County BOCES
- Paul Shatsoff
Workforce Development Institute
- David Hepinstall
Association for Energy Affordability, Inc.
- Barbara Drago
Business, Industry and Workforce
Development
State University of New York
- Bill Macchione
Empire State Carpenters
- Michael Dunseith
Green Jobs Training Center

C. Small Commercial and Not-for-Profit

Ruth Horton, Brian Platt, Marilyn Dare, Mark Eggers, Susan Andrews, Kim Lenihan, Peter Savio, Liz Hanna
New York State Energy Research and Development Authority

- Les Bluestone
Blue Sea Development, Inc.
- Kate Shackford
Bronx Overall Economic Development
Corporation
- Michael Conway
C.J. Brown Energy Engineering &
Architecture, PC
- Terry Zima
Capital District Supply Company
- Anthony Capese
Central Avenue (Albany) BID
- Michael Spector
Central Hudson Gas & Electric

- Jessica DiDonato
Con Edison
- Elizabeth Berger
Downtown Alliance (Lower Manhattan
BID)
- Steve Cohen
Empire State Development
- Tom Peters
Empire State Petroleum Association
- Abby Jo Sigal
Enterprise Community Partners
- Abraham Neuhaus
Greenlight Energy Conservation
- Dennis Landsberg
L&S Energy Services, Inc.
- Michael Healy
Lime Energy
- Walter Hoefer
Long Island Power Authority
- Jon Gruchala
National Fuel Gas
- Jim Stapleton
National Grid
- Tzipora Lubarr
New York Industrial Retention Network
- Nicola Coddington
Interfaith Power & Light
- Douglas Sauer
NY Council of Non-Profits
- James King
NY Small Business Development Center
- Robert Melvin
Orange and Rockland Utilities, Inc.
- John D'Amico
TCBA Watson Rice LLP
- Lauren Antelo
United Neighborhood Houses

D. Multifamily

Pat Fitzgerald, Lindsay Robbins, Frank Mace, Jim Reis, Peggie Neville, Joey DeRosa
New York State Energy Research and Development Authority

- Fred Fellendorf
Buffalo Energy
- Andy Padian
CPC
- Jodi Smits Anderson
DASNY
- Sam Marks
Deutsche Bank
- Dan Buyer
DHCR
- Abby Sigal
Enterprise
- Amy Barr
National Grid
- Michael Weisberg
M-Core Credit Corporation
- Margret Gans
PEACE
- Bob Noonan
RealLease
- Paul Rogers
Siemens

E. One- to Four-Family Buildings

James Reis , John Ahearn, Rhona Saffer, Michael Levitz, Bryan Henderson, Lee Butler, Andrew VanGorder

New York State Energy Research and Development Authority

<http://www.NYSERDA.org>

- Richard Kornbluth
Building Performance Contractors
Association/NYS (BPCA/NYS)
<http://www.home-performance.org>
- Larry Zarker
Building Performance Institute (BPI)
<http://www.bpi.org>
- David Palmer, Emmaia Gelman
Center for Working Families (CWF)
<http://www.centerforworkingfamilies.info/>
- Rick Cherry
Community Environmental Center (CEC)
<http://www.cecenter.org/>
- Mark Dyen
Conservation Services Group (CSG)
<http://www.csgrp.com/>
- Carlene Pacholczak
Department of Public Service, Public
Service Commission
<http://www.dps.state.ny.us/>
- Damian Hodkinson
Efficiency First
<http://www.encyfirst.org>
- Mike Lyons
Honeywell Utility Solutions (HUS)
<https://buildingsolutions.honeywell.com>
- Myles Lennon
Laborers International Union of North
America
<http://www.njlaborers.org/>
- Sammy Chu
Long Island Green Homes
<http://www.ligreenhomes.com/page.php?Page=home>
- Lisanne Altmann
Long Island Power Authority (LIPA)
<http://www.lipower.org/>
- Lisa Tallet
National Grid Generation d/b/a National
Grid
<http://www.nationalgridus.com/>
- Brian Paterson
New Buffalo Impact (NBI)
<http://www.newbuffaloimpact.com/>
- Kevin Schmalz , Betty Weis
New York State Electric & Gas
Corporation/Rochester Gas and Electric
Corporation
<http://www.nyseg.com/>
<http://www.rge.com/>

F. Outreach & Marketing

Tom Lynch, Kevin Carey, Susan Moyer, Jeffrey Gordon, Heather Saunders, Ryan Moore, Kelly Tyler, Kelli Herndon, Robert McKeon, Kelvin Keraga, Angela Bush, Tina Blowers, Susan Andrews
New York State Energy Research and Development Authority

- Samuel Sage
Atlantic Sales
- Chloe Tribich
Center for Working Families
- Corinne Hammons
Community Development Corporation
Of Long Island
- Nancy Peters, James Plastiras
DHCR
- Christopher Pinheiro
Department of Labor
- Ed Maitino
ESDC
- Michele Mattingly
Fiscal Policy Institute
- William Johnson
Green America-Public Private
Partnership
- Alan Hipps
Housing Assistance of Essex County
- Dan Miner
Long Island City Business Development
Corporation
- Aamaria Archila
Make the Road NY
- Chris Hinseley
Metrojustice
- Taleigh Smith
NWBCCC
- Laura Haight
NYPIRG
- Adrian Gonzales
Orange County Rural Dev. Adv. Corp
- Lauren Melodia
Open Society Institute Fellow
- Wendy Fleischer
Pratt Center for Community
Development
- Eric Walker
PUSH Buffalo
- Mike Dunleavy
RECAP
- Sheila Somashekhar
Sustainable South Bronx
- Art Wheaton
WNY Apollo Alliance
- Mike Patterson
Youth Constructive Initiative
- Brian Vattimo
New York Power Authority