

MEMORANDUM

To: Carley Murray and Patricia Gonzales, NYSERDA

From: Jane Peters, Research Into Action and Lark Lee, Tetra Tech

Date: April 16, 2013

Re: Work Plan for Process and Market Evaluation of the GJGNY Small Business/Not-for-Profit Program

NOTICE

This work plan was prepared by Research Into Action, Inc., in the course of performing work contracted for and sponsored by the New York State Energy Research and Development Authority (hereinafter the “Sponsor”). The opinions expressed in this work plan do not necessarily reflect those of the Sponsors or the State of New York, and reference to any specific product, service, process, or method does not constitute an implied or expressed recommendation or endorsement of it. Further, the Sponsors, the State of New York, and the contractor make no warranties or representations, expressed or implied, as to the fitness for particular purpose or merchantability of any product, apparatus, or service, or the usefulness, completeness, or accuracy of any processes, methods, or other information contained, described, disclosed, or referred to in this work plan. The Sponsor, the State of New York, and the contractor make no representation that the use of any product, apparatus, process, method, or other information will not infringe privately owned rights and will assume no liability for any loss, injury, or damage resulting from, or occurring in connection with, the use of information constrained, described, disclosed, or referred to in this work plan.

ABSTRACT AND KEY WORDS

This memorandum presents the work plan for the 2012-2013 market evaluation of the Green Jobs Green New York (GJGNY) Small Commercial/Not-for-Profit Program. The primary purpose of the evaluation research is to provide market intelligence to help program managers identify program design and delivery changes in order to increase the number of customers implementing energy efficiency projects through the program. While program staff have some information on current implementation rates, this evaluation will aim to confirm this rate and assess motivations and reasons behind the implementation rate. The evaluation will also assess the financing aspect of the program and investigate barriers and motivations for small businesses and not-for-profit businesses. The evaluation research includes in-depth interviews with program staff and consultants to the program and surveys with program participants. The research also includes secondary research characterizing small commercial and not for profit programs offered throughout New York State and the country. Last, the plan includes research with non-participants to more fully investigate the market issues, the scope of which is currently to be determined.

Key words: energy efficiency, small commercial customers, not-for-profit customers, market assessment, evaluation research

TABLE OF CONTENTS

Memorandum.....	1
NOTICE.....	I
ABSTRACT AND KEY WORDS	II
TABLE OF CONTENTS	III
List of Tables	Error! Bookmark not defined.
SECTION 1: INTRODUCTION	1-1
SECTION 2: PROGRAM DESCRIPTION	2-1
SECTION 3: EVALUATION METHODOLOGY	1
3.1 Research Objectives	1
3.2 Phase 1 Evaluation Activities.....	2
3.2.1 Task 1: Project kickoff and work plan development.....	2
3.2.2 Task 2: Sampling Plan	2
3.2.3 Task 3: Interview Instrument Development.....	3
3.2.4 Task 4: Data Collection (with Stakeholders, Peer Utilities, and Program Participants)	4
3.2.5 Task 5: Data Analysis and Report Preparation	4
3.3 Phase 2 Evaluation Activities.....	5
3.3.1 Task 4: Nonparticipant Data Collection.....	5
3.4 Timelines, deliverables and staffing.....	5
3.4.1 Staffing	7

SECTION 1:

INTRODUCTION

The Green Jobs Green New York Act of 2009 directs NYSERDA to establish and administer the Green Jobs-Green New York program (GJGNY). The GJGNY Small Business/Not-for-Profit program started in January 2011. The program provides audits and financing (Participation Loans available June 2011, OBR June 2012) to the eligible non-residential customer segment in order to identify energy efficiency opportunities and encourage the installation of energy efficient measures identified in the audit.

The key questions for this process and market evaluation are:

1. Why are so few customers taking advantage of the financing offered by the program?
2. What are the primary market barriers and opportunities, and what program and/or outreach features can address them?
3. What is the size of the market – is the specific definition of the market provided in the legislation the best way to serve the small commercial/not-for-profit market?

This study will be completed in two phases. A description of each phase, issues to be addressed, and key questions of interest, is described below.

Phase 1 will primarily focus on addressing research questions related to the limited uptake of financing options (key question #1). In light of the Green Bank program announced in the Governor's State of the State address, there is a strong interest in better understanding why GJGNY financing is not being used by the small business sector. Through Q3 2012, the program completed 1,224 audits and closed on two loans. While research to understand this issue has been planned for 2013 and 2014, it is requested that more timely information be collected to inform this issue. Therefore, the evaluation team will conduct primary data collection with participants and interviews with financial lenders, program staff, and expeditors in Phase 1 to gather timely information on this topic. These are fast tracked activities to provide more expedient information exploring lending and customer borrowing trends, barriers, and opportunities.

Phase 1 will also begin assessing market issues and how program features that address those issues (key question #2) through the activities discussed above and two additional activities. First, Phase 1 will also include a benchmarking review. This review will characterize other small-to-mid sized commercial and nonprofit offerings offered by utilities in New York and throughout the country. The benchmarking information will allow NYSERDA to understand how their program offerings compare to other offerings and how NYSERDA's niche intersects with other offerings in New York State. In addition to characterizing service offerings, the benchmarking research will also assess how small commercial customers are defined in other jurisdictions.

Second, evaluation staff will conduct interviews with participating program auditors and contractors. These interviews will assess market, program delivery, and opportunities from the perspectives of these stakeholders.

Phase 2 will focus nearly entirely on characterizing and defining the market in the context of the participation rules established by the GJGNY Act of 2009 (key question #3). The market characterization is a critical piece of this market study; however, the scope of this study is yet to be finalized and therefore will be developed through the second phase of the plan. The evaluation team anticipates that Phase 2 will primarily consist of primary research with non-participants in order to understand the small business and not-for-profit market in New York. This non-participant research will provide additional market intelligence to help NYSERDA, understand the limitations resulting from the Small Commercial Energy Assessment eligibility rules, the portion of the total market NYSERDA can serve within the GJGNY legislation guidelines, and potential impact of the funding ceiling defined at an applicant, rather than project, level. This research will also include interviews with nonparticipating financial institutions and lenders to understand the market and barriers to participation from their perspective.

This research will also provide insight to NYSERDA to identify those who are most likely to implement audit recommendations, and also provide information on the overall characteristics of this segment, including research with those both currently eligible and ineligible to participate in the program (detailed

Introduction

eligibility requirements are in Section 2 – Program Description). Last, the primary research in Phase 2 will identify the market barriers and opportunities for this segment and strategies to reach customers who are likely to implement energy-saving measures.

Table 1 summarizes the evaluation activities, methodology and key objectives.

Table 1: Activities for GJGNY Small Business and Not for Profit Market and Process Evaluation

EVALUATION ACTIVITY	METHODOLOGY	OBJECTIVES
Program Staff, Expeditor, Participating Contractor and Financing Staff Interviews	Conduct up to 20 in-depth interviews with staff that play key roles in the program design and delivery. This includes program staff from NYSERDA as well as third party contractors, expeditors, and financing staff that work with the program or sector.	<ul style="list-style-type: none"> • Understand the program operations including successes and challenges, including the financing portion of the program • Refine the key researchable issues for the evaluation plan. • Update program logic model if needed.
Benchmarking/ Best Practice Review	Conduct a secondary literature review of all New York state small commercial and not-for-profit program offerings. Conduct additional secondary research of small commercial and not-for-profit offerings throughout the US. Complete up to 4 interviews with program managers of programs of the most interest to NYSERDA to gain additional insight not available through a secondary review.	<ul style="list-style-type: none"> • Characterize other New York small commercial and nonprofit offerings as well as small commercial and nonprofit offerings throughout the country. • Understand how NYSERDA offerings compare to others, including audit offerings, and what NYSERDA’s niche in serving this market may be in New York State specifically, such as how others have sized the market and identified/addressed market barriers. • Assess how small business customers are defined in other jurisdictions. • Use the benchmarking results to inform the development of the primary data collection instruments.

EVALUATION ACTIVITY	METHODOLOGY	OBJECTIVES
Participant Surveys	Conduct quantitative surveys with a census of participants in Phase 1.	<ul style="list-style-type: none"> • Gather information and data to help NYSERDA segment this market and target those who most likely to implement audit recommendations. • Assess awareness of and barriers to uptake in program financing. • Assess program experience. • Identify customers with the highest operating hours and energy intensity. • Provide information on the overall potential/interest of different customer groups based on key firmographic and operational characteristics information (business types, facility ownership status, number of employees, facility square footage, and internal energy management practices). • Recommend strategies to overcome identified barriers and increase participation.

EVALUATION ACTIVITY	METHODOLOGY	OBJECTIVES
Non- participant Surveys	Conduct surveys with a sample of non-participants in Phase 2. The non-participant research, including definitions of the population of interest and the methods to be done, is TBD.	<ul style="list-style-type: none"> • Gather information and data to help NYSERDA segment this market and target those who most likely to implement audit recommendations. • Identify customers with the highest operating hours and energy intensity. • Provide information on the overall potential/interest of different customer groups based on key firmographic and operational characteristics information (business types, facility ownership status, number of employees, facility square footage, and internal energy management practices). • Identify the market barriers for this customer group, including barriers to participating in program financing. • Recommend strategies to overcome identified barriers and increase participation. • Understand the small business and not for profit market in general and determine the portion of the small business and not-for-profit market NYSERDA can serve given program guidelines

SECTION 2:

PROGRAM DESCRIPTION

On October 9, 2009, the Green Jobs Green New York Act of 2009 was signed into law. The Act directed NYSERDA to establish a revolving loan fund and other innovative financing mechanisms to provide loans to finance eligible energy efficiency improvements in structures used by small business (100 employees or less) or not-for-profit organizations. The Act requires NYSERDA to offer free and reduced cost audits and establish eligible cost effective energy efficiency improvements and standards for customer participation. The Act set maximum contributions from GJGNY funds to loan amounts at \$50,000 for small business/not-for-profit facilities.

On August 4, 2011, the Power NY Act of 2011, which included authorization for a statewide On-Bill Recovery (OBR) financing mechanism, was signed into law. The OBR legislation authorizes OBR loans for energy efficiency projects to be provided through the GJGNY programs. These loans will be recovered through a loan repayment charge on the electric or natural gas bill of one of the six investor-owned utilities or the Long Island Power Authority (LIPA).

The overarching goal of the Small Business/Not-for-Profit component of GJGNY is to serve eligible small businesses and not-for-profits by identifying energy savings opportunities and moving these customers toward implementation. To accomplish this, in January 2011, NYSERDA expanded the existing FlexTech Energy Audit program to provide free energy audits to eligible small commercial customers of the six investor-owned utilities, LIPA, and municipal power companies.

GJGNY funded audits are available to small businesses or not-for-profits with 10 employees or less but have an average annual electric demand of 100 kW or less. In addition, American Recovery and Reinvestment Act (ARRA) funded audits are available for New York businesses who are small businesses or a not-for-profits with more than 10 employees and an average annual electric demand of 100 kW or less. By augmenting the GJGNY funds with funds from ARRA, free energy audits are available to any small businesses with 100 employees or less with up to 100 kW demand and not-for-profits of any size with up to 100kW demand.

The Small Business Energy Efficiency Financing program was launched in June 2011. On-Bill Recovery Financing was launched in June 2012. Two loan products are available:

- a participation loan product, where NYSERDA puts up 50% (up to a max of \$50,000) of the cost of an energy efficiency project at 0% interest, and a lender provides the remaining project cost at the market rate. Those eligible are small businesses with 100 employees or less and not-for-profit organizations (no employee limit) that own, lease or manage their building or lease space within a building and have a release from the building owner to apply for financing through the program. Participants must have a qualified energy assessment. In addition, only measures recommended on a qualified energy assessment are eligible for financing.
- An on-bill recovery financing product, in which a lender originates a loan on behalf of NYSERDA up to \$50,000 at 2.5% interest and the customer repays the loan via a charge on the electric bill. The borrower must be named on the utility account of one of the following participating utilities: Central Hudson, Con Edison, Long Island Power Authority, National Grid (upstate NY customers only), New York State Electric and Gas Corporation, Orange & Rockland, Rochester Gas and Electric.

Participation in the program's financing options has been minimal to-date.

To further assist customers to implement audit recommendations and to understand the needs of this sector, program staff initiated an Expeditor Pilot. Under the pilot, three firms were hired to follow-up with audit participants to 1) explore and identify which implementation services would most effectively help customers in these sectors implement energy efficiency measures identified in their energy audit reports, including direct implementation support and assistance accessing Existing Facilities Program (EFP) incentives and/or GJGNY financing opportunities, 2) determine what skill sets contractor staff would

Program Description

require to perform these services, and 3) estimate how much funding would be necessary to provide these services. These findings are being used to design the next phase of the program.

SECTION 3:

EVALUATION METHODOLOGY

The Small Business/Not-For-Profit market evaluation will rely on in-depth interviews with program staff and consultants to the program, and with program participants and non-participants, as well as secondary research to provide information for program staff to assess needed program design and delivery changes.

3.1 RESEARCH OBJECTIVES

The objectives of the process and market evaluation are:

1. Examination of the program operations, particularly the program design and delivery to:
 - a. Understand the current program's successes and challenges.
 - b. Refine the key researchable issues for the evaluation plan.
 - c. Inform the evaluation work plan.
 - d. Identify program financing opportunities.
2. Conduct benchmarking and best practice reviews to:
 - a. Characterize other New York small commercial and not-for-profit offerings as well as small commercial and not-for-profit offerings throughout the country.
 - b. Understand how NYSERDA offerings compare to others and what NYSERDA's niche in serving this market may be in New York State specifically.
 - c. Assess how small business customers are defined in other jurisdictions.
 - d. Identify program financing practices.
 - e. Use the benchmarking results to inform the development of the primary data collection instruments.
3. Complete participant and non-participant surveys to identify reasons for participation and measure implementation including, but not limited to:
 - a. Assess program awareness and experience.
 - b. Identify customers with the highest operating hours and energy intensity.
 - c. Understand the small business and not for profit market in general and determine the portion of the small business and not-for-profit market NYSERDA can serve given program guidelines
 - d. Identify market and regulatory barriers and recommend strategies to overcome these barriers and increase participation for this customer group.
 - e. Provide information on the overall project implementation potential of each segment. For the participant surveys, some segments we have identified include small business/not-for-profit, high vs. low energy use, and ownership category.

As discussed in the Introduction, we will divide our evaluation into two phases. The first phase, especially the initial fast-tracked activities, will focus on exploring the financing aspect of the program include IDIs with program staff, expeditor staff, and financial lender IDIs, as well as the participant research. It will also include interviews with auditors and contractors and benchmarking research. The second phase, which has not yet been scoped, will include the non-participant research and will delve into assessing the small business and not-for-profit market in New York. We lay out each phase separately in the work plan below.

Phase 1 of this research effort is comprised of five research tasks, described below. We anticipate conducting 350 participant interviews beginning in the first quarter of 2013 and completing them by the second quarter of 2013.

Phase 2 is not yet scoped.

3.2 PHASE 1 EVALUATION ACTIVITIES

3.2.1 Task 1: Project kickoff and work plan development

The evaluation team and the Small Business/Not-For-Profit team initiated the evaluation with a project kickoff meeting on August 22, 2012. Appendix A provides summary notes from the meeting.

This document provides the work plan and sampling plan for the Small Business/Not-For-Profit process and market evaluation. Once NYSERDA approves this plan, the evaluation team will begin work.

3.2.2 Task 2: Sampling Plan

Table 3 provides our sampling plan for Phase 1. Participant population for the timeframe of September 2011 to September 2012 is approximately 700 audit recipients. Participants will be split into three groups, depending on their level of participation in the program:

1. Audit participants that also participate in EFP (AP-EFP)
2. Audit participants that also participate in Financing (AP-F)
3. Audit participants that have not yet implemented or have implemented on their own (with or without utility incentives) without EFP or F

Our sample size is based on census sampling of participants.

In addition to the primary data collection activities, a secondary literature review will be conducted of all New York State Small Business and Not-For-Profit program offerings. This task will include research on how other programs have sized the market, as well as how other programs have identified market barriers and adapted program design to overcome them. We will also complete additional secondary research of Small Business and Not-For-Profit offerings throughout the U.S. The secondary research will be completed by four in-depth interviews with program managers of other programs that NYSERDA is most interested in learning more about.

Table 2. Phase 1: Small Business & Not-For-Profit Process Market Evaluation Sampling Summary

Target Group	Current / Projected Population as of 10-1-12	Total Sample Size
Small Business/Not-For-Profit Program Staff and Expeditors	7	7
Financing Entities	7-8 (participating)	6 participating
Participants (including audit-only, audit plus financing, and audit plus implementation)	~700 total ¹	Census
Third Party Participating Contractors and Auditors	4 (participating)	4 (NYSERDA) 2 (Other utility/program)
Benchmarking Program Managers	TBD	4
Total Interviews (estimated)		450

We will conduct internal in-depth interviews during the first quarter of 2013 while undertaking sampling and data collection of participants beginning in March 2013. We will draw the participant sample based on the participant population between September 2011 and September 2012. For the participant research, some stratifications which have already been identified as groups of interest include: business type (small business, not for profit), ownership category (own vs. rent), account size (focus on high energy use and intensity), and/or building operations (focus on participants with high operating hours).

3.2.3 Task 3: Interview Instrument Development

We will develop interview instruments specific to each of the groups to be interviewed (identified in Table 2). We will develop interview guides to cover the research objectives outlined in Table 1 and additional topics suggested by NYSERDA staff in the course of our interviews with them. The interview guides will also include any issues that arise from our analysis of the project data (program materials, logic models, progress reports). The guides will solicit information to address the research objectives, including such topics as:

- The interviewee's role in the program.
- Detailed description of Small Business/Not-For-Profit activities from the interviewee's perspective.
- General program experiences.
- Participants' understanding of the program and perceptions of its benefits.
- Participants' decision making processes regarding the program.
- Participants' satisfaction with the program.
- Perceived barriers to program participation and financing as well as self-initiated energy efficiency
- Effectiveness of program outreach and marketing efforts.
- Opportunities for improvement in program processes and coordination with other NYSERDA programs.

We will coordinate the design and implementation of our data collection instruments with the NYSERDA survey contractor. To support the impact evaluation, we will notify interviewed participants of their possible inclusion in additional studies.

¹ Accounts for available population between September 2011 and September 2012.

We will submit the draft guides to the evaluation project manager to coordinate NYSERDA's review and comment. We will revise the guides based on the comments received prior to conducting any interviews.

3.2.4 Task 4: Data Collection (with Stakeholders, Peer Utilities, and Program Participants)

We will initiate data collection by conducting in-depth interviews with NYSERDA Small Business/Not-For-Profit program staff and expeditors to gain further understanding of the program operations including successes and challenges and refine the key researchable issues for the evaluation plan. In addition, we will conduct interviews with participating lenders to explore more about the financing aspect of the program.

We will conduct telephone interviews based on the sampling plan developed in Task 2. When we conduct interviews with participants, we will seek to identify the market barriers and recommend strategies to overcome these barriers and increase participation in the program overall, with specific focus on the financing aspect of the program. We will also assess participant program experiences.

We will conduct a secondary literature review of all New York state small commercial and not-for-profit program offerings to understand how NYSERDA offerings compare to others. Interviews with program managers of similar programs in other areas of the U.S. will provide additional insight to assess how small business customers are defined in other jurisdictions. Interviews with third-party contractors and auditors will also be done in Phase 1.

3.2.5 Task 5: Data Analysis and Report Preparation

When the data collection tasks are complete, we will analyze the data using quantitative and qualitative approaches, as appropriate.

We expect the data from interviews with program staff, third-party contractors, financing staff and other utility program managers to be primarily qualitative. We will take detailed notes throughout the interviews and record the interviews to augment our notes. We will summarize the findings and describe the themes that emerge from these interviews.

We expect that the interview data we obtain from participants will be primarily quantitative. Therefore, we will use data analysis/statistical software to analyze the data (specifically SPSS). Qualitative data will also be captured in open-ended responses, reviewed and included in the analysis as applicable. We will categorize customers into groups based on key firmographic and operational characteristics information (i.e., business types, facility ownership status, number of employees, facility square footage, internal energy management practices). We will characterize participation and market barriers and identified strategies to address the barriers for the different groups.

When the program staff, contractor and financing staff interviews and fast-tracked data collection and analysis is complete, we will deliver a draft Interim Findings Memo summarizing key findings. The objective of the interim memo is to provide preliminary information to assist program staff in thinking about ways to adjust program processes and offerings as well as to inform the remaining evaluation tasks. Following delivery of the draft Interim Findings Memos, we will conduct a phone conference to discuss the documents with Small Business/Not-For-Profit program staff. We will submit a final Interim Findings Memo and PowerPoint responsive to NYSERDA's comments following this call.

Once the first and second quarter 2013 data collection and analysis is complete, we will deliver a draft Final Report describing all of the evaluation findings. This final report will include: methodology, key results, recommendations, summary and conclusions, and appendices with detailed documentation.

Following delivery of the draft Final Report, we will conduct a phone conference and presentation to discuss the documents with Small Business/Not-For-Profit program staff. In the calls, we will review our findings, clarify points, and interpret the findings in tandem with Small Business/Not-For-Profit program staff, drawing conclusions and exploring recommendations. Because the benchmarking results will be finalized after the Interim Findings Memo, we expect most of the discussion will be around the customer survey results. We will submit a revised Final Report responsive to NYSERDA's comments.

3.3 PHASE 2 EVALUATION ACTIVITIES

3.3.1 Task 4: Nonparticipant Data Collection

Phase 2 data collection will primarily consist of primary research with non-participants in order to understand the small business and not-for-profit market in New York. This non-participant research will provide additional market intelligence to help NYSERDA understand this market and target those who are most likely to implement audit recommendations (hypothesized as those with the highest operating hours and energy intensity; other motivations will be reviewed as a part of this research as well). It will also provide information on the overall potential of this segment. One way to do this is by including not only those currently eligible to participate in the GJGNY program, but also those currently not eligible for the program that may be similar in their needs as the eligible population.

In addition, in Phase 2 we will conduct research with nonparticipating financial institutions. This research will help NYSERDA understand reasons for lender nonparticipation in the program as well as a broader understanding of the small business market from a financing perspective.

A detailed scope to conduct this research will be determined after additional discussion with NYSERDA and Phase 1 research is underway.

3.4 TIMELINES, DELIVERABLES AND STAFFING

Table 3 displays the preliminary schedule for implementing the Small Business/Not-For-Profit Process Evaluation.

Table 3. Anticipated Schedule of Milestones and Deliverables (Including Fast Tracked Research)

Task	Activity, Milestone, Deliverable	Anticipated Completion Date
1	Project kick-off meeting	Completed
1	Draft work plan	Current document
1	Final evaluation work plan	Two weeks after comments received from NYSERDA
	PHASE 1	
2	Program staff and financing staff sampling plan (fast tracked)	February 2013
3	Program staff and financing staff draft interview guides (2 guides total) (fast tracked)	Early February 2013
2	Participant sampling plan (fast tracked)	Early February 2013
3	Participant survey instrument (fast tracked)	Early February 2013
3	Final interview guides and participant survey instrument (fast tracked)	Two weeks after comments received from NYSERDA
4	Program staff and financing staff data collection completed (fast tracked)	May 31, 2013
4	Conference call to discuss initial participant survey findings (fast tracked)	One week after data collection begins
4	Participant data collection completed (fast tracked)	Mid June, 2013
5	Draft Interim Findings Memo (fast tracked)	June, 2013
5	Conference call to discuss interim findings (fast tracked)	June
5	Final Interim Findings Memo (fast tracked)	Two weeks after comments received from NYSERDA
2	Participating/non-participating contractors and utility manager sampling plan	Early May 2013
3	Participating/non-participating contractors and utility manager draft interview guides (2 guides total)	Early May 2013
3	Final interview guides	Two weeks after comments received from NYSERDA
4	Participating/non-participating contractors and utility manager data collection completed	June, 2013
	PHASE 2	
2	Non-participant sampling plan	TBD – tentative May 2013
3	Non-participant survey instrument	TBD – tentative May 2013
4	Non-participant data collection completed	TBD – tentative July 2013
	FINAL REPORTING	
5	Draft Final Report	Early August 2013
5	Conference Call to Discuss Final Report	TBD- August
5	Final Report	Two weeks after comments received from NYSERDA
All	Project Status Updates	Weekly and monthly

3.4.1 Staffing

Table 4 presents the estimated hours each member of the evaluation team will spend on the Phase 1 research.

Table 4. Project Staff

Project Staff	Estimated Hours for Phase 1
Jane Peters, Research Into Action	32
Lark Lee/Laura Schauer, Tetra Tech	80
Lisa Obear, Tetra Tech	200
Support Staff	110