Small Commercial Energy Efficiency Program Market and Process Evaluation

Final Report

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Abstract

This report presents the results of Phase 1 of the market assessment and limited process evaluation of the New York State Energy Research and Development Authority's (NYSERDA) Green Jobs Green New York (GJGNY) Small Commercial Energy Efficiency program. The GJGNY Small Commercial Energy Efficiency program offers energy audits and low-interest financing to eligible organizations. This evaluation assessed market barriers, customer experiences, and program successes and challenges to inform program design and customer outreach going forward. This research gathered both detailed quantitative and qualitative information with key market actors that interact with the program, including program audit providers, program expeditors, participating customers, and participating financial lenders. Detailed results are presented, and all results are synthesized into cross-cutting key findings and recommendations.

Key Words

energy efficiency, rebate, energy audit, small business, not-for-profit, financing, loans

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Summary

This report presents the results of the first of two phases of a process evaluation and market characterization and assessment of the New York State Energy Research and Development Authority's (NYSERDA) Green Jobs Green New York (GJGNY) Small Commercial Energy Efficiency program.

GJGNY funding allows the program to provide energy audits to commercial customers (small businesses and not-for-profits) with up to ten employees, with an average annual electric demand of 100 kW or less (in this document, the evaluation team will refer to these businesses as "very-small organizations"). NYSERDA also leveraged American Recovery and Reinvestment Act (ARRA) funding to expand services to commercial customers that employ between 11 and 100 employees, and not-for-profit agencies of any size with an average annual electric demand of 100 kW or less (in this document, the evaluation team will refer to these businesses as "small-mid organizations").

This research sought to address two key research questions:

1. What are the primary market barriers and opportunities for this segment, and what program and/or outreach features can address them?

2. Why are so few customers taking advantage of the financing offered by the program?

The research additionally focused on addressing sub-segments of the program population: a) the very-small and small-mid organizations; and b) small business and not-for-profit organizations. Throughout this report the evaluation team presents results by these sub-segments, where pertinent.

The Small Commercial Energy Efficiency program provides walk-through energy assessments (audits) at no charge to small business and not-for-profit customers. The audit results in a written report that provides recommendations for energy-efficient equipment and behavioral improvements, as well as refers customers to NYSERDA energy efficiency and loan program offerings. In 2012 and 2013, the program piloted implementation support services offered through "expeditor" firms, which were separate from the firms that offered the audit. The evaluation confirmed that small businesses and not-for-profits often need considerable support services to aid implementation of energy-efficient projects. Audit firms handing-off projects to expeditors for implementation support, as was done during the expeditor pilot, proved challenging. The program is currently redesigning for 2014 to offer "one-stop shop" audit and implementation support to customers and allow for more streamlined program delivery.

In addition to the audit and implementation support services, the program also offers low-interest Small Commercial Energy Efficiency Financing through two loan products to small businesses with 100 employees or less and not-for-profits of any employee size. The financing component saw limited uptake

through 2013, and the evaluation confirmed that there are challenges that face small businesses and not-for-profits related to financing.

The evaluation identified several differences in how sub-segments of the program's target population approach energy efficiency, and confirmed the range of barriers small businesses and not-for-profits face to making energy-efficient upgrades or improvements. For very-small organizations – those with ten or fewer employees – these barriers can often be insurmountable without outside assistance. While the program is filling a key need in the market, these barriers present considerable challenges to effectively serving this population.

This summary represents findings from the first phase of the process and market evaluation for this program. In order to more fully explore the small business and not-for-profit market needs and characteristics, a second phase is planned that will include interviews with nonparticipating financial lenders and nonparticipating small businesses and not-for-profits.

The evaluation team has identified the following overarching findings from this evaluation:

1. **The small business and not-for-profit market faces considerable barriers to energy efficiency, many of them financial.**

In general, small businesses and not-for-profits face a wide variety of barriers to installing energy-efficient projects, including capital limitations, lack of employee time or priority on energy efficiency, split-incentives due to non-building ownership, and a lack of knowledge regarding efficient improvements. Without outside help, such as the Small Commercial Energy Efficiency program, small businesses and not-for-profits may not be able to overcome these challenges to implementing energy-efficient projects.

A lack of capital for energy-efficient investments is one of the biggest barriers facing small businesses and not-for-profits. Thus, rebates and incentives often play a very important role in customer decision-making processes. Surveyed participants report applying for utility-offered rebates more often than NYSERDA incentives, as utility rebates cover up to 70% for lighting measures, which are the most common audit recommendations installed by customers.

2. **Very-small organizations (ten or fewer employees) are characteristically different from small-mid organizations (11-100 employees), which presents challenges when it comes to energy efficiency.**

GJGNY funding for energy audits is limited to energy audits and implementation support for very small businesses and not-for-profits with ten or fewer full-time employees ("very-small organizations"), and NYSERDA requires that customers seeking audits also fall below a ceiling of 100kW of demand. The ARRA funding, which expired in September of 2013, permitted the Small Commercial Energy Efficiency program to offer program services to organizations that had between 11 to 100 employees and not-for-profits of any employee size ("small-mid organizations") with less than 100kW of demand.

While very-small organizations reported paying a higher percentage of their overall operating costs towards energy bills than small-mid organizations, their level of equipment installation post-audit was significantly[1] lower than small-mid organizations. Small-mid organizations were also more likely than very-small organizations to say that their business revenues had increased over the past two years. Overall, program implementation staff in general agreed that the two groups face different challenges and have different needs when it comes to energy efficiency. Audit providers noted that very-small organizations have very little capital to spend on improvements. Most of the lenders agreed that very-small organizations face considerable challenges in securing financing, even through non-traditional channels such as community development financial institutions, as these very-small organizations may face deeper long-term planning challenges than small-mid organizations. This includes challenges such as being more vulnerable to downswings in the economy and a higher likelihood of leasing their facility The Phase 2 nonparticipant research will more broadly explore the needs and characteristics of these two populations.

3. Not-for-profits experience different challenges and approach energy efficiency differently than small businesses overall.

The evaluation identified several key differences between not-for-profits and small businesses, both from primary research with participants and through qualitative research with lenders and expeditors. Participating not-for-profits were more likely than small businesses to have installed equipment post-audit, but less likely to have applied for rebates or incentives. Participating not-for-profits were also much more likely to have policies in place regarding equipment purchases, while most small businesses had no such policies. Not-for-profits also tended to spend a higher amount of their operating budget on energy compared to small businesses.

In summary, small businesses, especially those that are very-small, may need more follow-up support to move them through the implementation process. Small businesses appear to need more assistance than not-for-profits in getting access to funding, incentives as participating small businesses were less likely to implement efficient equipment post-audit, and rated access to rebates and incentives as very important. Conversely, not-for-profits tend to be more likely to implement equipment on their own without rebates or incentives, but may still need the energy audit or technical assistance in order to get projects approved from upper management. To further explore these differences, this topic will be a key item of research for the Phase 2 nonparticipant customer research, to assess whether these findings hold true in the general population of small businesses and not-for-profits.

[1] The significance, or alpha, level for all comparisons within this report was set at .05 (i.e., a 95% confidence level) using a z-test.

4. Currently, the program primarily serves building owners.

Businesses that lease their facilities can be difficult to serve due to split-incentives. In general, program implementation staff agreed that split-incentives are a major barrier to energy-efficient project implementation for small businesses and not-for-profits. Audit firms discussed the complexities of serving organizations that do not own their facilities, and some respondents said they consequently specifically target owned facilities. More participants owned their property compared to leasing it, with significantly[2] more businesses that owned their property reporting installing equipment post-audit than those that leased. Not-for-profits were significantly more likely to own their facility (86%) than small businesses (59%). Of those participants that leased, nearly all had plans to renew their lease at their location. The businesses interviewed for this effort are participants only; therefore, in Phase 2 the nonparticipant customer research will assess whether these characteristics are similar for the small businesses and not-for-profits that have not yet participated in the program. Differences in length of tenure and plans to move or only lease short-term may be important market characteristics for the program to incorporate into planning.

5. On top of the barriers faced by small businesses and not-for-profits as they seek to implement audit recommendations, small businesses and not-for-profits face specific barriers to accessing financing and loans.

In addition to the barriers discussed above (capital limitations, lack of employee time, split-incentive, and a lack of knowledge), businesses face additional challenges when it comes to accessing financing. The barriers to accessing financing include poor credit or already-high debt. Although not-for-profits were more aware of program offered financing than small businesses, not-for-profits reported that they were less likely to be able to take advantage of program-offered financing due to restrictions or policies governing financing within their organization charter. Participating lenders also reported that one challenge to working with not-for-profits is that they tend to face more funding uncertainty, as often their annual operating budget depends on grants or charitable donations, which can fluctuate.

6. Customer surveys indicate that one explanatory factor for the low uptake in program-offered financing for customers who have implemented projects is that they are completing smaller projects, which may not necessitate loans.

A little more than half of program participants were aware of program financing, but only four participants have received the program financing at the time of the evaluation. The participant survey identified that customers most commonly did not take advantage of loan options because they believed the size or cost of

[2] The significance, or alpha, level for all comparisons within this report was set at .05 (i.e., a 95% confidence level) using a z-test.

their efficiency project did not justify a loan. A large majority of participant projects were lighting projects, which tend to be less expensive, with a smaller portion being larger HVAC or insulation projects.

In addition, participating financial lender staff reported that they have considerable experience working with the small business and not-for-profit market. However, from qualitative discussions with program-participating financial organizations, some lenders may not be as familiar with the challenges to lending specifically for energy efficiency projects, such as discussing with customers payback periods and monthly energy savings compared to the loan payment.

Conclusions and Recommendations

The program appears to be filling a need in the market and is adjusting to better serve small businesses and not-for-profits in New York and address challenges encountered during 2013. This evaluation offers the following conclusions and recommendations.

Conclusion 1: A program objective is to encourage participating customers to install energy-efficient equipment. The research showed that small-mid organizations were more likely than very-small organizations to implement audit recommendations. The expiration of ARRA funding limits the program to serving the very-small organizations per GJGNY rules, and these very-small organizations face many challenges to implementing audit recommendations.

- **Recommendation 1:** Consider options to further support the financial and decision-making needs of very-small organizations. For example, NYSERDA might work with audit and implementation support contractors to offer to meet jointly with the property owners and tenant as part of the implementation support offered through the program to overcome the split incentive barrier. Another option could be offering a longer-term loan as part of the financing component, which may make monthly payments more manageable for very-small organizations, if they meet both legislative requirements and small businesses' shorter planning horizons.

- **Recommendation 2**: Continue to streamline the program delivery through one audit and implementation support contractor per region, and ensure all program actors coordinate efforts, to ensure timely follow-up and consistent messaging. This will be especially important as the program turns its focus to very-small organizations, which may need deeper-level support to implement energy efficiency projects. Consolidating audit and implementation support services to one contractor per region, as the program is currently doing, should allow these contractors to provide this deeper-level support to organizations that need it, through continual follow-up, hand-holding through rebate processes, etc.

Conclusion 2: There has been limited uptake in the financing portion of the program for many reasons, several of which are outside the program's control.

- **Recommendation 3:** As part of the recent program design change to have one contractor offering both audits and implementation support per region, ensure that all program market actors (e.g., audit firms, contractors) have the tools necessary to discuss financing in-depth with customers at an early stage, and that there is continual follow-up with customers throughout the implementation process. Working with audit providers to help them identify projects that are good candidates for financing, such as more substantial improvements or large retrofits, may help as well. If further engaged in energy efficiency by NYSERDA, participating lenders may be in a good position to provide follow-up as well, as all lenders interviewed reported long-term experience lending to the small business and not-for-profit market.

1 Introduction

The **New York Energy $mart**^{SM} programs are funded by an electric distribution System Benefits Charge (SBC) paid by customers of Central Hudson Gas and Electric Corporation, Consolidated Edison Company of New York, Inc., New York State Electric and Gas Corporation, National Grid, Orange and Rockland Utilities, and Rochester Gas and Electric Corporation. Programs are available to all electric distribution customers that pay into the SBC. The New York State Energy Research and Development Authority (NYSERDA), a public benefit corporation established in 1975, administers the SBC funds.

Through the Small Commercial Energy Efficiency program, energy assessments funded through Green Jobs Green New York (GJGNY) are available to small businesses (SB) and not-for-profit organizations (not-for-profits, or NFP) with 10 employees or less with an average annual electric demand of 100 kW or less (in this document, referred to these as "very-small organizations"). In addition, NYSERDA used American Recovery and Reinvestment Act (ARRA) funds to provide energy assessments to New York small businesses who employ between 11 and 100 employees and not-for-profit agencies of any size with an average annual electric demand of 100 kW or less (in this document, referred to these as "small-mid organizations"). By augmenting the GJGNY funds with funds from ARRA, free energy assessments were 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. ARRA funding expired September 30, 2013.

The Small Commercial Energy Efficiency program also offers two loan products to small businesses and not-for-profits through a subcomponent of the program, the Small Commercial Energy Efficiency Financing program. Only measures identified in an energy assessment are eligible for financing. Other factors (e.g., cost effectiveness, building ownership, leasing arrangements, named utility-bill payer) may also affect eligibility for financing.

Small Commercial Energy Efficiency Financing was launched in June 2011 with a participation loan product. On-Bill Recovery Financing was launched in June 2012. Participating financial institutions, which can include Community Development Financial Institutions (CDFIs), credit unions insured by the National Credit Union Association, commercial banks, trust companies, savings banks, savings and loan associations, and mortgage lenders,[3] work with NYSERDA to offer these loan products to customers.

Descriptions of the two loan products are below.

- **Participation loan product.** NYSERDA lends 50% (up to a max of $50,000) of the cost of an energy efficiency project at 0% interest, and a lender funds the remaining project cost at the market rate. Eligible applicants are small businesses with 100 employees or less and not-for-profit

[3] Due to program feedback from lenders and other research, program staff are currently revising this definition.

organizations (no employee limit) that own, lease, or manage their building. Organizations that lease space must have a release from the building owner to apply for financing through the program. Participants must have a qualified energy assessment to receive the funding. In addition, only measures recommended on a qualified energy assessment are eligible for financing.

- **On-bill recovery financing product.** 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, Consolidated Edison Company of NY, Inc., Long Island Power Authority, National Grid (upstate NY customers only), New York State Electric and Gas Corporation, Orange & Rockland Utilities, and Rochester Gas and Electric.

This report presents the results of quantitative and qualitative research with key program and market stakeholders, program and implementation staff, and participating customers. These include:

- In-depth interviews with four program audit providers, who provide outreach and energy audits to small businesses and not-for-profits through the program
- In-depth interviews with two of the three program expeditors, whose role it is to follow up with customers to help facilitate energy-efficient project implementation and access to loans
- Surveys with 318 small businesses and not-for-profit organizations in New York that participated in the energy audit component of the Small Commercial Energy Efficiency program in 2011 and 2012
- In-depth interviews with five out of the six participating lenders, who partner with NYSERDA to offer low-interest loans to small businesses and not-for-profits

2 Evaluation Methodology

This chapter summarizes the methodology used to sample, interview, and conduct analysis for the different groups interviewed as part of this evaluation.

2.1 Audit Providers

Four organizations currently provide audit services through the Small Commercial Energy Efficiency program: C.J. Brown Energy; L&S Energy Services; Daylight Savings; and EME Group. The evaluation team collected qualitative information from these organizations to understand:

- The audit process and their interactions with customers
- Auditor perspectives on the small business / not-for-profit market
- How customers are referred to financing options and customers' responses to financing
- Barriers to implementation, incentives, and financing

Representatives from three organizations completed interviews via telephone between October 3 to October 11, 2013. One representative responded to interview questions in writing on October 25, 2013.

2.2 Expeditors

In 2012-2013, three organizations provided implementation support services through the Small Commercial Energy Efficiency program: Nexant, Taitem Engineering, and Novus. The evaluation team collected qualitative information from these organizations to understand:

- The expeditor process and their interactions with customers
- Expeditor perspectives on the small business / not-for-profit market
- Expeditor interactions with customers specifically on the financing options
- Barriers to implementation, incentives, and financing

Representatives from two of the three organizations completed interviews via telephone on July 11 and July 12, 2013.

2.3 Participating Lenders

Tetra Tech conducted in-depth qualitative interviews with five out of the six participating financial institutions (“lenders”) in early to mid-May 2013. These interviews with lenders provided insights into the program’s operations, their interactions with the program, the customers the program is serving, and barriers to customers’ participation in the program. Specifically, the interviews sought to address several key researchable questions:

- What are the challenges to working with the small business and not-for-profit market segments?
- What barriers do these types of customers face in securing financing?
- What are reasons behind relatively low loan participation numbers to date?
- How can the program best engage small business and not-for-profit customers in the program?
- How can the program best engage lenders in the program?

Interviewees included staff at four community development financial institutions (CDFI) and one credit union. It is important to note that while the majority of participating lenders were interviewed, this research is based on a small sample size (5). Therefore, information reported may be based on just one or two respondents, which is indicated within the analysis.

2.4 Participating Small Businesses and Not-For-Profits

2.4.1 Sampling

Program staff provided two customer databases differentiated by funding type: ARRA and GJGNY. In addition, NYSERDA provided databases containing expeditor follow-up information. All databases were provided in *Microsoft Access*, and all data manipulation, preparation, and sampling was conducted using *SPSS*.

Per discussions with program staff, customers that fell into the timeframe of completing the audit between September 2011 and September 2012 were eligible to be sampled. All data received was combined into one master database. Any project with a date populated in the variable "Cancellation Date" was removed. Only projects that completed the audit remained in the population. As the sample point of interest for this study was the business customer as a whole and not the individual location, the sample was aggregated to an overall customer level using customer contact name and customer contact phone number.

Because of this aggregation, there was overlap by funding and business type; a small amount of projects with the same decision-maker fell into both the GJGNY and ARRA funding groups, as well as the small business / not-for-profit groups. After aggregation and selection of only those projects within the eligible timeframe, there were 926 projects in the sample. Approximately 80% of these 926 projects were listed in the expeditor interaction files. A census was taken of all eligible sample points.

As part of the participant survey effort, the evaluation team also followed up with customers who received program financing. Of the four total projects that received financing through the program, two were in the audit sample – these projects were taken through the full quantitative survey instrument. The remaining two were interviewed via a brief in-depth interview and only asked a subset of questions.

2.4.2 Surveys

The NYSERDA evaluation survey contractor, abt SRBI, Inc., completed 318 quantitative surveys of participating customers in June and July 2013. These interviews provided insights into the program's operations, participant interactions with the program, the small business and not-for-profit market the program is serving, and attitudes and barriers to energy efficiency and financing. Specifically, the surveys sought to address several key researchable questions:

- What proportion of customers went on to implement energy-efficient projects post-audit? Of those that did, what resources, rebates, or other support did they use? Of those that did not, why not? What future implementation plans do these businesses have, if any?
- What barriers did/do participating small businesses and not-for-profit organizations face when it comes to implementing energy-efficient projects at their facilities?
- What are customer attitudes on energy efficiency in their business?
- What are participant attitudes towards financing in general? What barriers do small businesses and not-for-profit organizations face in securing financing? Are participants aware of program-offered financing? If so, why do participants choose not to participate in financing?
- Of customers who participated in program financing, what was their experience?
- What are participating customer characteristics? For example, how many participating businesses owned vs. leased their facilities? How many have high operating hours or believe they have high energy use?

Additionally, as discussed above, NYSERDA provided information on four businesses that had participated in the financing portion of the program during the initial stages of program activity. Two had completed an audit through the program as well. The two participants who completed audits were included in the quantitative sample, and were interviewed and analyzed as such. However, as the program-offered audit was a key research element of the quantitative survey, Tetra Tech completed brief in-depth interviews with the two financing recipients who had not received audits separately from the quantitative data collection effort conducted by Abt SRBI. These participants were asked only applicable questions from the survey and the information was included in the qualitative analysis of financing recipients (discussed below); however, these projects were not included in the analysis, weighting, or population totals of the quantitative survey, as they did not receive audits and were not asked a majority of survey questions.

2.4.3 Weighting

While a census of all eligible projects within the sample timeframe was taken (N=926), surveys were completed with a slightly higher proportion of not-for-profit organizations than small businesses. Therefore, the survey data was weighted to more accurately represent the proportion of small businesses to not-for-profit organizations in the population. Table 2-1 shows the breakdown of business type within the eligible population, the number of completed surveys, and the associated analysis weights.

Table 2-1. Weighting

Business Type	Population	Completed Surveys	Weight
Small Businesses	686	211	3.251
Not-for-profit organizations	238	106	2.245
Multiple, with both*	2	1	2
Total	926	318	

* This respondent was identified as the contact for both a small business and not-for-profit. This case is included in the "Overall" category of all analysis but not included in tables separately

2.4.4 Analysis

Unless otherwise noted, responses of "don't know," "not applicable," or "refused" were dropped from the participant analysis. Additionally, any statistically significant differences between groups are noted either within text, or signified in tables and graphs with an asterisk (*).[4] Where the number of responses for a particular question or within a particular comparison group is 30 respondents or less, only unweighted counts (not percentages) are reported; these small groups were also not included in any comparisons between groups.

[4] The significance, or alpha, level for all comparisons within this report was set at .05, or at the 95% confidence level using a z-test.

3 Participating Lender Research

Below are the detailed findings resulting from the in-depth interviews conducted with five of the six participating financial lenders involved with the Small Commercial Energy Efficiency Financing program.

3.1 Lender Characteristics

Of the five lenders interviewed, four were not-for-profit community development financial institutions (CDFI), and one was a credit union. Several of the community development agencies offered other services, such as income-qualified weatherization or employment counseling in addition to loans and financial services. Most interviewees also offered residential loans. Four of the five lenders interviewed operated in upstate New York, while one operated downstate.

In general, interviewees reported strong ties to the community as being a driving factor in their day-to-day business practices. Interviewees also reported that their commercial loans tended to be focused on small businesses and/or not-for-profit businesses; only one reported that they worked with larger businesses. As one interviewee stated, any loan they offer needs to be “mission appropriate,” or fit the community-service goals of their organization. This interviewee stated that their loans specifically tend to focus on women- or minority-owned businesses, those with low-to-moderate income, “green” projects, and some agricultural projects. Interviewees also generally reported that the small businesses and/or not-for-profits they have been able to serve over the past several years have grown.

Most interviewees were commercial loan officers within their organization. One interviewee did not work directly with small businesses or not-for-profits and instead managed the organization’s energy-related programs. Except for this interviewee, interviewees reported experience working with small businesses and/or not-for profits for at least several years. Typical commercial loan amounts also varied by organization. Some reported offering loans up to half a million dollars for not-for-profits; others reported that their typical loan amounts for small businesses ranged from $25,000 to $50,000. Several lenders also reported offering business counseling or technical assistance to their customers in addition to loans and financing.

Most lenders reported that they do not work with other non-NYSERDA energy-efficiency programs. One interviewee noted that one of the communities in which they work has a board of public utilities that offers residential and business rebate programs – this lender was familiar with these programs. Another reported that their organization does offer weatherization and home improvement programs, of which energy-efficiency is a component.

3.2 Barriers to the Small Business and Not-For-Profit Market Accessing Loans

The lenders noted that many of their commercial customers are those that are not able to access financing through other, more traditional methods. One stated, *"Most of these small businesses are coming to us because 95% of them can't get loans through traditional means."* Several lenders noted that they often see poor credit scores of the business owner when reviewing applications. Additionally, one lender mentioned coming across other issues (i.e., delinquencies on utility payments) as challenges when reviewing whether a loan can be made to a small business. This lender noted that while their purpose is to serve "mission appropriate" projects, the loan needs to be economically feasible as well. He noted: *"If you have delinquencies all over the place – me adding a $300 bill to your cash flow every month doesn't help anybody."*

Lenders identified three general barriers small businesses and not-for-profits face when seeking out financing: the split-incentive presented by the owner/renter relationship; funding uncertainties and limited cash flow; and limited financial knowledge or skills. Four interviewees worked directly with small businesses and not-for-profits, and were able to speak in detail about barriers they face; one did not work directly with customers and was only able to speak at a high level.

3.2.1 Leasing and the Split-Incentive Barrier

The first and most frequently reported barrier is that many small businesses, and not-for-profits to a lesser extent, lease their facilities; all four of the interviewees that work directly with customers reported this as a barrier. This barrier is broadly known as the split-incentive barrier. Commercial tenants may have the motivation to install energy-efficient equipment, as they pay the utility bills, but likely need landlord permission to upgrade or retrofit the facility. Conversely, the landlord often does not pay the utility bill and therefore has limited motivation to invest in energy-efficient technology.

Not only is the split-incentive barrier a challenge, but leasing also adds a long-term planning challenge for tenants when considering improvements to their facilities. Capital improvements and energy-efficient upgrades are inherently long-term investments. Small businesses and not-for-profits, especially those that are newly established, may not know how long they will be in the same facility and may be unwilling to make a long-term commitment to building improvements. One interviewee summarized, *"Depending on how long my lease is, if you were my landlord, I don't see the need to put $50,000 into your building unless there is something in it for me."*

One lender noted that their experience working with landlords on the residential side was that landlords were often not interested in improving the facility unless it was free. This interviewee noted that their success in working with landlords has been finding those with plans already in place to renovate their facility and working with them to include energy-efficient solutions in that renovation.

3.2.2 Funding Uncertainties

Another barrier reported by lenders for small businesses and not-for-profits is funding uncertainties, which affects both market segments in slightly different ways. For small businesses, especially those which are very-small, their financial statements may not reflect the necessary net revenue to secure a loan. One interviewee said: *"With small businesses, when they first start it's challenging because they're not showing enough income. We're cash flow lenders. We need the business to support the debt."*

Another interviewee noted: *"The small businesses that are trying to enter the market or expand don't have access to the same credit that they might have had in 2006 when the banks gave out a lot of loans. The people that are more credit worthy don't want loans, and the people who need the loans aren't getting them."* Additionally, one lender reported that small businesses can be more susceptible to swings in the economy: *"They have a great year this year, but next year it's a big down cycle in their financials."*

Not-for-profits also face funding uncertainties, related to their funding sources. Many not-for-profits rely on grants or charitable donations to operate. These are often renewed or re-secured year to year. One lender noted, *"Just because you've gotten a grant for $50,000 for the last five years, how do I know you're going to get it for the sixth?"*

3.2.3 Financial Knowledge

Finally, one lender reported that many small businesses face a financial knowledge barrier that may impede them from accessing loans. Especially for very-small organizations (i.e., under 10 employees), one individual, often the business owner, may be playing many roles within the business. This interviewee stated, *"The best chef is not always the best manager…. You're managing inventory, books, employees, utilities, payroll… It's a new experience for a lot of folks. A lot of folks need an education in that regard."* This interviewee also reported that a barrier for not-for-profits securing financing lies in the sophistication of their bookkeeping, such as whether they are able to put together an appropriate balance sheet or cash-flow projection. Another interviewee noted that unless a business has staff that focus solely on the bookkeeping of the business, the owner is often very busy and *"wearing many hats."* This lender reported this adds to the challenge, as it may take that business owner a long time to return paperwork or needed information to process the loan.

3.3 Lender Experiences with NYSERDA's Small Commercial Energy Efficiency Financing Program

As expected, most lenders reported limited interactions relating to the program. Most lenders had not yet completed a loan through the program, although several reported receiving applications or having some promising projects in their pipeline. Generally, these lenders reported having some type of existing relationship with NYSERDA prior to becoming involved with the Small Commercial Energy Efficiency Financing program.

3.3.1 Administrative Requirements of the Program

When asked if the program itself created any barriers for customers to participate, reactions were mixed. Several mentioned the lower interest rates as an attractive part of the loan for small businesses and not-for-profits. However, one interviewee felt the process was long and the paperwork could be tedious for a small business owner. He noted, *"Getting a business owner to do half of that for us on a regular commercial loan is challenging. Once you start adding layers of others involved and audits and stuff like that, it's really hard for them to do because of the time commitment."* This interviewee also noted that the process sometimes doesn't align with the immediate needs of the customer: *"If they need a furnace or something – they need it in the next week or two. It could be four or five weeks before we get this thing approved."* Another interviewee did not think the structure of the program would deter potential participants, but he noted *"it's still a loan."* He felt that when small businesses are struggling to manage their expenses, *"they have to do the math… It's a wonderful incentive, but debt is debt. So it's better debt, but it's still debt."*

3.3.2 Benefits of and Satisfaction with the Program

In general, most lenders expressed a desire to become more active in the program. One reported continuing conversations with NYSERDA program staff to discuss ways to move forward with the program. When asked what the benefits were to participating in the program for their organization, several lenders mentioned the lower interest rates that make it more economically feasible for the borrower. One interviewee summarized the benefits he saw, stating: *"It's mission appropriate, it's green, it's energy efficient, [there's] job creation for the work that's being done."*

Lenders reported positive interactions with NYSERDA in general. Several mentioned their satisfaction with program staff, stating that program staff have been very communicative, responsive, and provided enough information on the program. When asked about different program requirements, such as the on-bill financing and participation loan requirements, interviewees seemed familiar with the details of each, or comfortable discussing them.

3.3.3 Participation Loan Product vs. On-Bill Recovery Loan Product

When asked about whether they would be more likely to offer the participation loan product or an on-bill recovery loan, two lenders noted they would be more likely to lean towards the participation loan as it offered more financial incentive for their organization. However, both also stated that they would still offer the on-bill recovery loan to customers. One of these lenders said the on-bill recovery loan would be great for customers, noting: *"The ability to lower their utility bill or build it into their utility bill, why wouldn't they do that?"* Another lender felt that they would be equally likely to offer the on-bill or participation loans, as both were good options for customers.

3.3.4 Increasing Lender Participation

Several interviewees noted that CDFIs and credit unions were the right lenders to be offering the program. One said, *"Since we are mission driven and nonprofit, it is easier for us to justify doing. Why would a bank even do it? NYSERDA needs to look at alternatives like us and credit unions."* Another interviewee agreed that there would be little motivation for a bank to participate: *"A $300 origination fee is not that big of a deal to a large bank if the company is going to go with an on-bill financing."* Interviewees in general expressed interest in becoming more involved with the program in the future. Most reported that NYSERDA relies on the underwriting process of the lender, so there is not much more additional work involved on the front-end of the loan for the lender than normal. However, two lenders noted that they felt the administrative burdens of the program could become problematic should their participation increase. One said: *"I could see doing 7-8 in a year, maybe one every other month. Just based on amount of time and resources I would commit my department to doing. Because this is not something that we are making money or grants off of."*

Another stated that the small overall size of the loans offered through the program (less than $50,000) meant that lender staff would have to spend more time managing each account on the back-end. This lender noted that this became especially burdensome when the loan was a joint loan with another entity. He stated: *"The other challenge – possibly a deterrent – because these loans are a joint loan, as this becomes more popular and we do more loans, I can see that being a bit of a challenge for lenders to manage that (re)payment process. It's really a participation loan with NYSERDA. As we take the leads on them, if you have a handful it's pretty easy to manage each month, but you kick that up to 100-200… As time goes on, could be something we need to think about, to mitigate that a little bit. I could see lenders saying 'I need to cap this because I don't have the staff to facilitate this transaction.'"* He stated that larger joint loans are easier to manage: *"If you have a 20 million dollar deal, you're happy to do that because you have a 10 million dollar loan, but 100 ten-thousand dollar loans, and it takes a staff member how long to do it? Eventually someone is going to say to me – what are you doing?"*

3.4 Increasing Customer Participation in the Program

Only one interviewee reported successfully completing a loan through the program. One interviewee felt that increasing their participation in the program was a matter of getting *"something under our belt."* This interviewee felt that once they had completed a few loans, they would be much more comfortable with the process. He noted, *"Like anything else, once lenders do one or two of these they get comfortable and understand fundamentals – we'll do more."* Lenders brought up several points when discussing how to include more customers in the program, including additional needs or support from NYSERDA.

3.4.1 Discussing Energy Efficiency with Customers

Responses from interviewees were mixed when discussing motivations for small businesses and not-for-profits to install energy-efficient equipment. In addition, several lenders noted that they wanted or needed additional support in discussing the benefits of energy efficiency with their customers. One interviewee stated that they felt there was interest in the market, but small business customers always need to weigh the financial pros and cons of energy efficiency equipment. He said, "*I think they think about it for sure, and then it's back to the math. I want to replace this water heater, but how much does it cost – if it costs me $2,000 to save me $50 a month, how many months before I get my money back?"* Notably, another interviewee indicated that this discussion of the pros and cons is important, and they, as a lender, have struggled to understand how to discuss energy efficiency with their customers. He said: *"I have to be perfectly honest with you, lenders haven't wrapped our arms around lending for energy efficiency. We haven't, I guess, quantified the certainly reduced expense and cost overall for these energy-efficient improvements. That's why we partner with NYSERDA."* Another noted that real-life examples of the benefits of energy efficiency, such as the payback period, would be helpful to receive from NYSERDA. This lender felt that this information, discussed in relation with the length of the loan, would be a good way to have these conversations with customers.

3.4.2 Increasing In-Person Marketing Efforts

Lenders in general did not report robust marketing of the program from their end. Most noted that they discuss it with customers, but none reported any marketing outside of a general discussion. One felt that their organization could do a better job marketing the program and making sure to discuss it with all potential participants: *"We're out there talking to business owners all the time and we don't always think about it [the program]."* This lender did express a desire to increase their participation and noted they were planning to reach out to NYSERDA to discuss ways to do this.

When it comes to marketing, most lenders saw opportunities to increase or expand marketing efforts. One expressed a desire for joint marketing between NYSERDA and their organization. Several interviewees mentioned chambers of commerce as a valuable resource to reach small businesses. One suggested channels other than NYSERDA and lenders to reach customers: *"Unless you go to NYSERDA's website or are thinking about it, they're not going to know this [the program] is out there. Instead of lenders and NYSERDA, think about other resources business owners use and use them to market this."*

Similarly, another interviewee felt that their local chamber of commerce was active and would be a good resource to market the program. However, this lender cautioned against setting up "energy efficiency only" events to reach small businesses. He noted that those events tend to attract mostly people in the energy industry and fewer small businesses. Other broader events that appeal to many different issues important to small businesses and not-for-profits could be more fruitful: *"You have to get them when energy isn't the main focus to hit people that aren't really aware of energy things."* Another interviewee stated that they felt business outreach events were the best way to reach customers, along with face-to-face interactions, and that these interactions need to include real-life examples of energy projects and the savings that could be achieved.

3.4.3 Focusing on Small-mid Organizations and Younger Business Owners

One interviewee reported that business owners with more than ten employees (small-mid organizations) are more likely to own their own building, lessening the effect of the split-incentive barrier on larger small businesses. This interviewee also reported that small-mid organizations also have more options to secure financing, as they have larger deposit accounts and more years of solvency and revenue. Another agreed, speaking specifically about small businesses implementing energy efficiency through the program: *"My personal opinion, I think there is interest, but I don't know if it is financially feasible. Larger projects make sense because they have a lot of usage and those returns are greater."*

Another interviewee noted that they have one project in their pipeline that is promising; this customer is an architectural engineer and has a personal interest in energy efficiency. This customer is planning to purchase a piece of commercial real estate and retrofit the building to the highest efficiency level possible. The lender noted that he felt this green, efficient attitude could be generational – he stated that older generations may be more cautious in investing in energy efficiency. However, he said that: *"… young generations are looking at ways to do this. I think it's the future, but we need to figure out how we get behind it and support it."*

3.4.4 Reducing Confusion in the Market

Finally, one interviewee noted that he felt there was considerable confusion in the market when it comes to energy efficiency in New York, in terms of the sheer amount of information customers receive on energy and energy efficiency from the broader market. He said, *"You hear customers say that there are too many players; they don't know who to work with."* This interviewee felt that the audit process of the program left customers on their own and there should be more coordination amongst all contractors and program providers in New York, which should then be communicated to customers to alleviate confusion of who to go to after the audit. Program staff is currently redesigning the program so that both audit and implementation support services will be offered through one regional contractor in order to provide more streamlined services and guidance to customers.

4 Expeditor and Auditor Research

This chapter summarizes the key findings from the expeditor and auditor interviews by the following topic areas: interaction with NYSERDA; marketing and outreach; auditor and expeditor services provided; barriers to installation and customer participation in loan programs; and program influence on customers' decisions. Findings from discussions with program staff is also incorporated where pertinent.

Four audit firms, organized by region, are contracted with NYSERDA to provide services under the Small Commercial Energy Efficiency program. These auditor firms have been contracted with NYSERDA to provide services to New York customers through this program for over a decade.

In addition, in 2012 and 2013 the program piloted implementation support services through three firms, also organized by region, who served as program "expeditors." These expeditors help encourage audit recipients to implement energy-efficient projects.

Neither the expeditors nor the audit firms indicated any specific performance or contractual goals with NYSERDA. They both mentioned that they attempt to reach and serve as many customers as possible.

4.1 Marketing and Outreach

The interviews with audit firms assessed, from their perspective, how customers are engaged in the program and if they had thoughts on how to best reach the target market. NYSERDA does not mass market this program, although they do develop case studies and fact sheets related to the program. According to program staff interviews, mass marketing is not necessary to get customers into the program. The combination of the free audit and customers' networking/word of mouth engages sufficient participation into the audit process. Program staff is more concerned with how to encourage customers to make the recommended improvements through NYSERDA programs than eliciting participation in the free audit.

Audit firms provide limited outreach to customers; in fact, outreach is not a required service within their current contract. Targeted outreach, however, will be included in the new contracts with regional audit and implementation support contractors. It is their impression that customers are primarily hearing about the program through word-of-mouth or NYSERDA. Still, all audit firms reported doing some limited outreach outside of their contractual purview. For example, auditors may share information about this program through their participation in local events and trade shows. Per discussions with NYSERDA program staff, NYSERDA plans to include limited outreach to auditors' scope of work in the next contract process.

NYSERDA's website is another source of information for customers. Auditors identified the website as a potential area for improvement, stating that it was difficult to navigate and find program information. Since the interviews, NYSERDA published their revamped website, which may help with the navigation issues referenced by the audit firms.

Finally, NYSERDA's call center provides indirect outreach. Customers call into NYSERDA inquiring about the program or, if identified as a small business customer, may be referred to the program by the call center. The call center was another area identified for improvement by audit firms. They noted instances where customers were confused by information provided by the NYSERDA representative, or where the customer had difficulty reaching the right person to start the enrollment process. This is another area NYSERDA is looking into and addressing.

4.2 Role of Expeditors and Auditors in the Small Commercial Energy Efficiency Program

The Small Commercial Energy Efficiency Program takes a multipronged approach to serving these small commercial and non-to-for-profit customers. Once fully enrolled in the program, customers receive a walk-through audit from one of four regional audit firms. As discussed further in this section, the customer receives verbal recommendations throughout the audit, as well as a written report documenting energy efficiency improvement opportunities and financial implications of making those improvements.

The expeditor's role within the pilot initiative that took place in 2012 and 2013 was to work with customers post-audit. The expeditor is responsible for following up with customers and working with them throughout the decision-making and eventual installation and application process. One expeditor felt their role was truly "technical assistance," as customers need help deciding what measures to focus on, as well as interfacing with the contractor to make sure the right equipment was installed to get rebates or incentives.

Per program design, auditor firms and expeditors are clearly distinct roles and responsibilities, although in practice, audit firms may provide expeditor-type services. Since these audit firms are the first major point of contact for customers, it is not uncommon for customers to reach out to the auditors to request additional support and advice, sometimes years after the audit is complete. For example, customers may follow up with auditors to discuss technical issues related to recommendations and even request that auditors review contractor's bids to complete work. Several auditors also mentioned following up with customers after a period of time.

In the future, NYSERDA intends to combine the auditor and expeditor roles and responsibilities under one audit provider contract.

4.3 Audit and Expeditor Process

Customers enroll in the program by completing the Central Funding Application (CFA). Customers may receive support in completing the application by NYSERDA and/or the audit firms.

NYSERDA will provide the customers' contact and other pertinent information to the audit firm once the application is reviewed and approved. Audit firms will then reach out to the customers directly to introduce themselves (if the customer has not had previous contact with the firm) and schedule the walk-through audit.

The initial walk-through audit lasts approximately two to three hours. In that time, auditors will assess the major mechanicals within the facility (such as lighting and HVAC systems). Customers typically accompany the auditor during the process, which provides the auditor with the opportunity to discuss what they are observing and potential opportunities for energy-efficient equipment and behavioral improvements.

The auditor uses the information collected through the walk-through audit, along with the customers' usage data, to develop the audit report. The format of the report varies slightly by audit firm, but generally includes an introduction and executive summary that documents, in easy-to-understand terms, the recommendations and financial implications of following the recommendations.

This section is followed by more detailed information on recommendations at the measure level. The detailed section further expands on the cost, annual savings, and return on investment. Auditors report most frequently recommending the following types of improvements: lighting, lighting controls, thermostats, weather stripping, domestic water heating, and HVAC systems including boilers and furnaces.

All audit firms said that they include in the report NYSERDA programs that offer incentives for the various measures. In the future, NYSERDA will be requiring auditors to not only document the recommended NYSERDA incentive programs, but also present the specific incentive value or range of incentives provided by NYSERDA as part of the return on investment calculation. The report also documents lending offerings available to customers through NYSERDA. Utility programs may be referenced during the walk-through audit, but auditors only provide written documentation for NYSERDA's programs.

Although the type of information captured is relatively consistent, the primary means for delivering the information did vary by audit firm. Some firms said they typically present the results at an in-person visit, whereas another firm said that they mail the results to the customer and then initiate a follow-up telephone call to discuss the content and any questions.

Recognizing the variations in audit report communications, and that hands-on communications can be more influential for customers, NYSERDA will be requiring that auditors meet directly with customers to discuss the audit report and establish next steps. Audit firms will also be responsible for initiating follow-up meetings and offering support to customers as they implement projects.

Audit firms report that it takes from three to six weeks to complete the audit process (from walk-through audit to report presentation). They report that the timeline ranges primarily due to customer availability, although workload and other commitments may also affect timing. All audit firms said that customers respond favorably to the walk-through audit and report.

As part of the pilot launched in February 2012, expeditors provided follow up with audit recipients to offer implementation support. One expeditor described being tasked with "*getting projects unstuck*." Expeditors reached out to customers who had received audits to determine if customers had any projects stemming from the audit that they were still considering implementing, and if they had any outstanding implementation support needs. Expeditors also reported discussing the financing component and rebates or incentives available for the potential projects. One expeditor reported that customers were sometimes confused on next steps to implementation, or had questions, and felt that this often stemmed from small businesses and not-for-profit employees being busy and time-strapped. Another expeditor reported that they often engaged in "*lots of back and forth*" with lenders and contractors to ensure that customers install the required equipment to receive rebates, incentives, or financing.

4.4 Barriers to Installation and Customer Participation in Loan Programs

4.4.1 Barriers to Serving the Target Market

As described earlier, GJGNY rules dictate that the audit program serve organizations with ten or fewer employees. NYSERDA also requires that organizations that receive energy audits through the program fall below an energy demand ceiling of 100 kW or less. NYSERDA leveraged ARRA funding to offer the free audit services to organizations with over 10 employees who also met the energy use requirement of 100 kW or less.

Employee size is calculated as full-time equivalent employees. Temporary employees are excluded when determining business size.

The strict limitation in the GJGNY employee size requirement is an attempt to intentionally serve the most difficult to reach segments of the population – the very-small business customers. Utilities offer programs to small commercial customers, but no other program in New York specifically focuses on this very-small segment.

Although intentional, targeting this very-small market can be a challenge and a barrier to not only participation in Small Commercial Energy Efficiency, but also to adoption of recommended measures. Therefore, one of the key research questions of the auditor and expeditor interviews was whether they believed the program was targeting the right market, and whether there were segments of the population they believe are in need but not being served due to the requirement.

In general, auditors do not have any concerns about delivering the program under this requirement. Audit firms also did not think the loss of ARRA funding would negatively affect their activity, although two firms noted that it is often easier to reach out to and serve small-mid organizations, as very-small organizations may not have the capital to invest in energy-efficient improvements.

One expeditor specifically noted that he didn't think the 10 employee size was optimal for program design and delivery. He noted that no other program that he has worked with imposes this requirement. Another expeditor noted that small-mid organizations may have a better infrastructure to allow them to approach energy efficiency; some very-small organizations may not even have the time to sit down and discuss energy efficiency at all because they are stretched so thin.

In addition, audit providers and expeditors raised other barriers around serving this market, some of which may be directly or indirectly related to the size requirement:

- **Difficulty serving non-owners.** Audit firms estimated that between 50% and 90% of program participants own their facilities, depending on the firm interviewed. Customer surveys verified this assertion, with about two-thirds of customers reporting that they own their facilities. This is not surprising, as engaging customers that do not own their facilities can be difficult. First, these leasing customers face a split incentive barrier that is a traditional barrier for this market. Because customers typically pay for utilities, building owners are not invested in upgrading to higher efficiency equipment. Additionally, customers that lease their facilities may be more transient and less invested in the building, thereby decreasing their interest in upgrading to higher efficiency equipment. Due to these issues, several audit firms mentioned that they specifically target only building owners in the situations when they do any limited outreach.

- **Lack of internal staff resources and knowledge to implement projects.** These small business customers have very limited staff and resources. Owners and other decision-makers wear multiple hats and are pressed for other demands. Both auditors and expeditors mentioned this as a barrier to engaging these customers, although one auditor in particular mentioned this as a more of a barrier to the very-small (10 and fewer employees) than the small-mid customers.

4.4.2 Barriers to Implementing Projects

Reaching and providing audit services to small business and not-for-profit customers is only one key metric. A related, and perhaps more critical, program objective is to encourage these customers to implement energy efficiency improvements, taking advantage of funding provided through NYSERDA programs. Barriers to implementation include:

- **Planning timeline.** Unlike larger commercial customers, who have the internal knowledge and resources to plan for capital improvements, auditors and expeditors believe smaller commercial customers are less likely to plan for these improvements. Instead, they generally replace only when necessary and repair whenever feasible due to lack of capital. Therefore, the timeline for making capital improvements is generally less defined than for other larger customers.

  As the expeditor pilot was started midway through program delivery, expeditors found that it could be challenging to continue to reach out to customers whose audits were completed over a year previously. Sometimes, customers had already implemented some or all of the improvements on their own; sometimes not. This length of time between the report and follow-up, along with the potential for staff turn-over, created a need to re-educate the customers.

Conversely, audit firms mentioned that customers may contact them one or multiple years after an audit is complete. The audit firms reported working with the customer and addressing their follow-up questions at that time. The continuity of the audit firms engaged in the program have helped to facilitate the process when customers reach out to them after a longer period of time.

- **Limited funding for capital improvements.** Audit firms and expeditors also described the limited funding as a barrier for customers to implement projects. This is particularly true for larger, and typically non-lighting, investments. Audit firms mentioned that a way to improve the implementation rate for these customers is to increase the incentive to cover a greater percentage of the project costs. They referenced the utility programs' offering up to 70% of project costs to this market, primarily for lighting improvements.

- **Lack of time or resources to apply to programs.** There is evidence that some customers are making improvements post-audit and may not be going through any rebate program. As presented later in this report, about 60% of participants surveyed said that they installed at least one recommended measure post-audit. Of those, only about 40% of customers received a rebate or program incentive. One possible reason for not applying for a rebate or incentive is the perception that the process would be too laborious or difficult for the amount of money they would receive back through NYSERDA's program. One expeditor specifically commented on this point and said that some customers reported that because of the size of projects, it wouldn't make sense to apply for program rebates/incentives, or it was "*too much trouble*." To address this issue, NYSERDA program staff noted that they will be emphasizing the need for audit firms to work closely with customers to help them complete rebate or incentive application forms in the future.

4.4.3 Barriers to Financing

At the time of this study, few small business or not-for-profit customers took advantage of NYSERDA's loan programs to help fund energy efficiency investments. Therefore, one key research issue to be addressed in the auditor and expeditor interviews was their perception of customer interest in loan offerings and reasons behind the high rate of nonparticipation.

Audit firms reported that they provide information to all customers about the NYSERDA loan offerings. They do not present specific information; rather, they simply reference the loan programs on the audit report. When probed for why more specific details are not presented, audit firms mentioned that they do not feel they have sufficient documentation or information to provide to customers on participating lenders and their processes. Follow-up interviews with NYSERDA program staff indicate that trainings and informational meetings with audit firms have focused on continuing education this area, and future contracts with regional audit and implementation support contractors will require contractors to offer financing-specific support, including application assistance.

One expeditor interviewed said that they did believe customers were aware of and potentially interested in financing options, but needed to be "re-familiarized." Another said he felt that most participants, by the time they followed up with them, were not aware of financing and it was "*news to them.*" Both expeditors and audit firms mentioned the need to educate customers about their financing options, and audit firms expanded on this point by recommending that NYSERDA provide specific leave-behind materials for audit firms to provide customers regarding lending options and the process.

Two additional barriers mentioned by respondents related to customers' financial circumstances. First, expeditors noted that customers' cash flow, and their ability to make payments, may be a constraining factor for customers. They recommended that longer financing terms may alleviate this pressure.

Second, an auditor firm explained that in order to qualify for financing, the project must not exceed a 15-year payback period. This respondent stated that inclusion of lighting allows the project to meet that requirement, but customers that install equipment with higher costs and payback periods, such as boilers, have the greatest need for, but are least able to, obtain financing.

4.5 Program Influence on Customers' Decisions

Audit firms generally believe that the audit provides information that customers would not have known without the audit. According to these respondents, the audit provides information and services to customers that would not have taken the time or the opportunity outside of the program:

- *"Customers understand conceptually what they need to do. They don't understand how exactly to do it."*
- *"The audit gives the basis for making a decision. Without the audit, no basis.*"

As described later in this report, small business and not-for-profit customers surveyed supported auditors' perceptions in their response to specific survey questions related to this point. About three-quarters of participants said they would not have received an audit without this program. Additionally, of those that installed equipment, nearly all respondents (96%) asserted that the audit report was either very important or somewhat important in their decision.

5 Participating Customer Research

Below are the detailed findings resulting from the quantitative surveys conducted with 318 Small Commercial Energy Efficiency program audit recipients, followed by qualitative findings resulting from interviews with four program financing recipients.

Several business characteristics were identified prior to survey fielding as variables of interest to consider in the analysis of the data in comparison groups. These included small businesses or not-for-profit organizations, very-small organizations or small-mid organizations, participants with high (56+ hours/week), medium (40-56 hours/week), or low operating hours (<40 hours/week), and businesses that own or lease. Analysis of all question responses in this report were done by business type (small business vs. not-for-profit) and any statistically significant differences reported.[5] Where relevant and pertinent, other respondent characteristics (hours of operation, number of employees, and ownership status) are included in the analysis as well.

5.1 Energy Audit Recipients

5.1.1 Audit and Program Experience

All respondents received an audit through the program. When asked the main reason they were interested in receiving a program audit (see Figure 5-1, below), respondents most frequently reported wanting to know how to reduce operating or energy costs (57%) or wanting to know what they could do to save energy (22%). Small businesses were significantly[5] more likely to say reducing operating or energy costs (59% compared to 49% of not-for-profit organizations), whereas not-for-profit organizations were more likely to say they wanted to know what they could do to save energy (28% compared to 20% of small businesses).

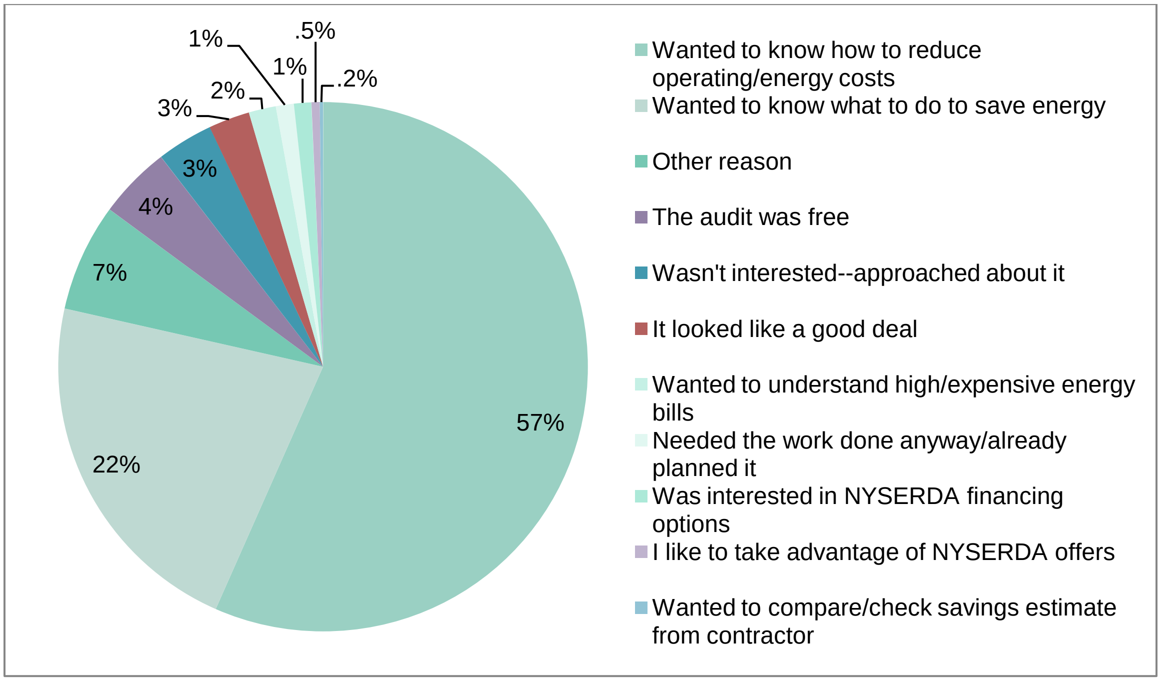
Respondents were asked how useful they found the information provided during the energy audit, on a scale of “0-to-10”, with “0” being not at all useful and “10” being very useful. On average, respondents rated the usefulness of the information a 7.6 out of 10. Additionally, a majority of respondents remember receiving the audit report (92%).

Respondents were asked if they would have obtained an audit some other way if they had not received one for free through the program. Approximately three-quarters of respondents (77%) said they would not have. Those with high operating hours were significantly more likely to say they would have obtained the audit some other way without the program (31%) than both those with low and medium operating hours (15% and 17%, respectively).

[5] The significance, or alpha, level for all comparisons within this report was set at .05, or at the 95% confidence level using a z-test.

Figure 5-1. Main Reason Respondent Was Interested in Receiving Program Audit

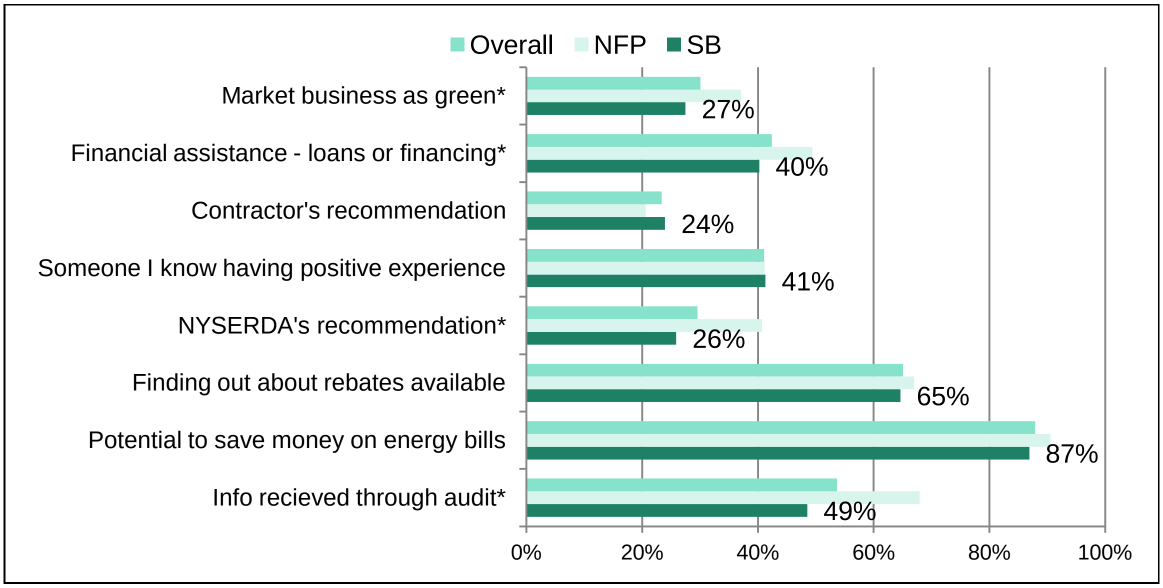
Source: Appendix E, Question PP1



Respondents were asked to rate the importance of several different factors in their decision to participate in the Small Commercial Energy Efficiency program, on a scale of “not important,” “somewhat important,” “very important,” or "not applicable. As shown in Figure 5-2, the most highly rated factor was the potential to save money on energy bills; 88% of respondents overall rated that factor as “very important.” This was followed by finding out about rebates or incentives available for projects (65% rated this as very important). Conversely, the factor with the fewest “very important” ratings was a recommendation from a contractor, with only 23% of overall respondents rating that factor as very important.

Figure 5-2. Percent of Respondents Rating Factors as "Very Important" in Deciding to Participate in the Program

Source: Appendix E, Question PP8



* indicates statistically significant differences between groups at the .05 alpha level, or 95% confidence level.

5.1.2 Equipment Installation

Sixty-one percent of respondents reported installing some or all of the equipment recommended to them in the audit; significantly more not-for-profits reported doing so than small businesses (68% and 58%, respectively). Additionally, significantly more small-mid organizations said they installed equipment post-audit than very-small organizations (71%, compared to 58%). Similarly, significantly more businesses that owned all the space at their facility stated they installed equipment post-audit as compared to those that leased all of it (65%, compared to 51%). Respondents reported installing a wide variety of equipment, including insulation, weatherization, HVAC, water-saving measures, controls, and windows; however, respondents most predominantly reported installing lighting measures (81%).

Of those who installed equipment, 41% indicated that they received a rebate for the equipment, with nearly three-quarters (73%) of those mentioning their utility as the source of a rebate or credit. Significantly more small businesses received rebates or incentives (47%) than not-for-profit organizations (27%). Fourteen percent of respondents who installed equipment and received rebates or incentives noted that they received their incentive from NYSERDA; zero respondents mentioned local or federal tax credits as sources of rebates or credits.

When asked why they decided to install the equipment that was recommended to them during the audit, respondents gave a wide variety of answers. As shown in Table 5-1 respondents again most frequently reported that they installed the equipment because they wanted to save money on energy bills (50%) or wanted to be energy efficient (42%).

Table 5-1. Reasons Respondent Decided to Install Equipment Recommended in Audit

Source: Appendix E, Question C13

Reason	Small Business Number	Small Business Percent	Not-For-Profit Number	Not-For-Profit Percent	Overall Number	Overall Weighted Percent
Wanted to save money on energy bills*	57	47%	42	58%	99	50%
Wanted to be energy efficient	53	44%	26	36%	80	42%
Wanted to upgrade old equipment*	19	16%	5	7%	24	13%
Needed equipment regardless*	5	4%	7	10%	12	6%
Rebates or financial assistance made it affordable*	9	7%	1	1%	10	6%
Wanted to market my business as energy-efficient or “green”	3	2%	4	6%	7	3%
Payback period was short	4	3%	0	0%	4	2%
Other	8	7%	5	7%	13	7%
Total Respondents (n)	**121**		**72**		**194**	

Note: Respondents could select more than one response; totals will exceed 100%.

* Indicates statistically significant differences between groups at the .05 alpha level, or 95% confidence level.

Respondents who noted earlier that they had not yet moved forward with any projects post-audit were asked why they had not yet installed any of the equipment or implemented any of the projects. Respondents most frequently reported budget or capital-related reasons, including not having the capital available for the projects (25%) or other priorities for spending (14%). Ten percent of respondents also replied that they felt the estimated energy savings resulting from the project was too small to justify implementing it. A small percentage of respondents (1%) noted that they would need financing or a loan in order to consider the project.

These respondents were also asked if they had plans to install the equipment in the next year. Slightly less than one-third of all respondents said they did have plans (31%); however, significantly more not-for profit organizations said they had plans to install equipment than small businesses (52% compared to 25%). When asked which projects they planned to install, responses ranged from lighting (including delamping), HVAC systems, oil-to-gas conversion, controls, and windows.

5.1.3 Program Awareness

Respondents reported fairly diverse means of hearing of the Small Commercial Energy Efficiency program. Most frequently, respondents noted hearing of the program either from NYSERDA staff or a contractor/vendor (24% and 13%, respectively). Word of mouth (9%) and trade expos or conferences (8%) were the next most frequently mentioned means of hearing of the program. Small businesses were significantly more likely than not-for-profit organizations to mention NYSERDA staff or a NYSERDA mailing, the program auditor, or a Chamber of Commerce meeting, whereas not-for-profit organizations were significantly more likely to mention word-of-mouth, emails from NYSERDA, and the newspaper.

Table 5-2. How Respondent Heard of Program

Source: Appendix E, Question A1

Source	Small Business Number	Small Business Percent	Not-For-Profit Number	Not-For-Profit Percent	Overall Number	Overall Weighted Percent
NYSERDA staff*	50	27%	12	14%	62	24%
Other contractor/vendor	25	13%	12	14%	37	13%
Friend/business person*	12	6%	15	17%	27	9%
Conference/ trade show/ expo	16	9%	7	8%	23	8%
NYSERDA (mailing)*	16	9%	1	1%	17	7%
NYSERDA website	13	7%	5	6%	18	7%
NYSERDA (email newsletter)*	9	5%	9	10%	18	6%
NYSERDA (call center)	10	5%	3	3%	14	5%
Contact from auditor*	8	4%	1	1%	9	4%
Chamber of Commerce meeting or newsletter*	8	4%	1	1%	9	4%
From participation in another NYSERDA program	3	2%	2	2%	5	2%
Newspaper*	2	1%	3	3%	5	2%
Other (*specify*)	15	8%	16	18%	31	11%
Total Respondents (n)	**186**	**100%**	**87**	**100%**	**274**	**100%**

Note: Totals may not sum to 100% due to rounding.

* Indicates statistically significant differences between groups at the .05 alpha level, or 95% confidence level.

Respondents were asked whether they were aware of the programs for small businesses available through their primary utility company. Most respondents were not aware of these programs (74%). Those that were aware frequently mentioned being aware of lighting programs, but several were unable to name a specific program or end-use. Slightly fewer than half of those who were aware of utility programs for small businesses indicated they had participated in one (46%).

In New York, there are several different entities that provide energy-related services to customers, including utilities, NYSERDA, and other energy service companies (ESCOs). Respondents were asked whether they have ever been confused as far as what services these companies provided, what services would best fit their needs, and whether another company was affiliated with NYSERDA. In general, respondents reported a fairly low level of confusion; overall 19% reported confusion, both with what services the different companies provided and which ones would best fit their needs, and 16% said they were confused as to whether other companies were affiliated with NYSERDA. Not-for-profits were significantly more likely to be confused than small businesses across all three aspects; the highest level of confusion within this group was with what services the different companies provide (28%, compared to 16% of small businesses).

5.1.4 Attitudes on Energy Efficiency

Respondents were asked to rate how much they agreed or disagreed with several statements about energy efficiency in general, on a scale of “0-to-10” with “0” being “strongly disagree” and “10” being “strongly agree.” Overall, participants had fairly positive attitudes about energy efficiency, rating the statements “I care that my energy consumption affects future generations” and “Adding energy-efficient equipment helps my operating budget” highly at a mean of 8.6 and 8.7, respectively. The statements “My business's contribution to energy efficiency does not make a difference” and “Energy efficiency requires too much effort” were rated much lower, at 2.7 and 2.5, respectively. The only statement to receive a mid-rating was “Comfort is more important than energy efficiency” at an average rating of 4.4.

Respondents were also highly aware of energy efficiency, as shown in Table 5-3 below. When asked whether two statements about energy efficiency were true or false, over 90% of respondents answered both correctly (both answers were true).

Table 5-3. Knowledge of Energy Efficiency

Source: Appendix E, Question PP12

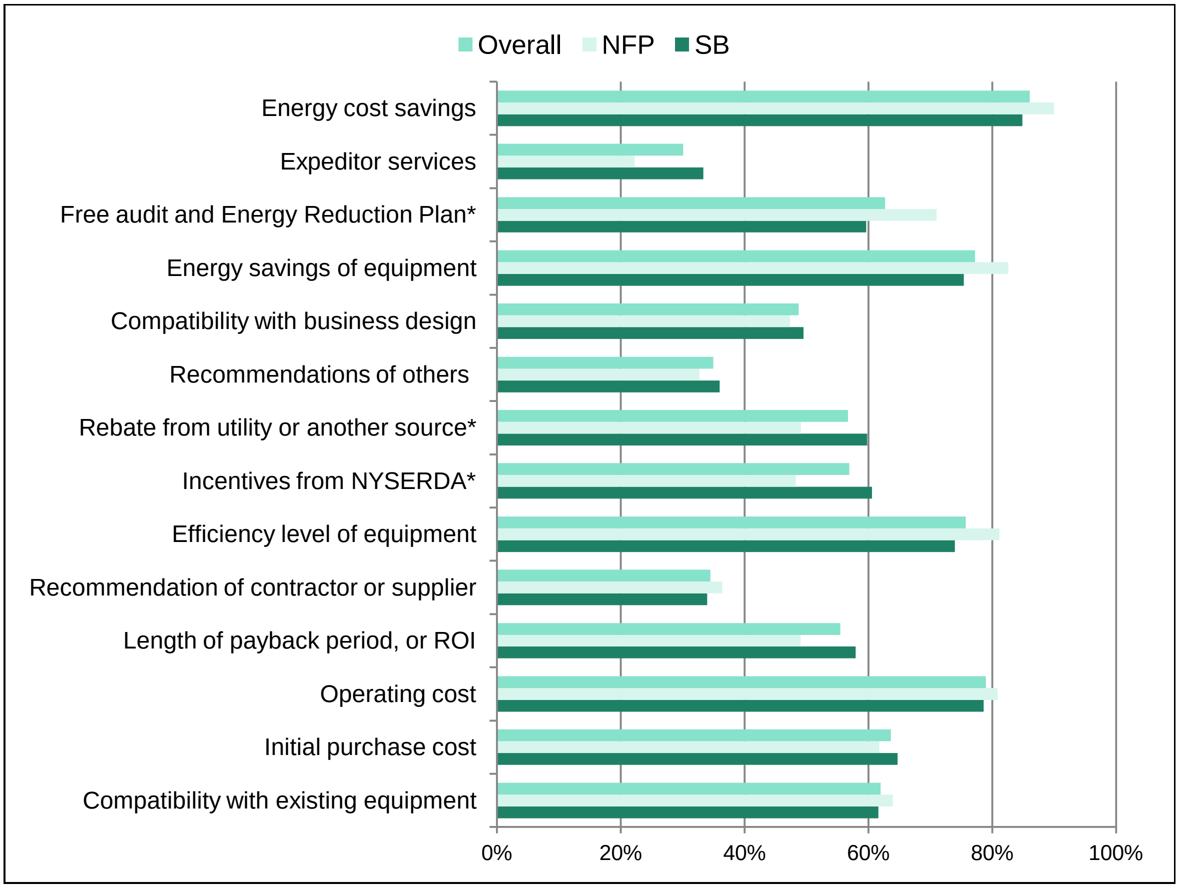
Response	Small Business Number	Small Business Percent	Not-For-Profit Number	Not-For-Profit Percent	Overall Number	Overall Weighted Percent
"Replacing an old refrigerator can save > $100yr."						
True	174	92%	94	97%	269	93%
False	16	8%	3	3%	19	7%
Total Respondents	**190**	**100%**	**97**	**100%**	**288**	**100%**
"Computers and printers can have phantom load up to 40 watts."						
True	163	90%	85	91%	249	90%
False	18	10%	8	9%	26	10%
Total Respondents	**181**	**100%**	**93**	**100%**	**275**	**100%**

Note: Totals may not sum to 100% due to rounding.

Respondents who indicated earlier that they had implemented some or all of the energy-efficient projects post-audit were asked to rate the importance of several factors in their decision to install the equipment that was recommended to them through the program audit. As shown in Figure 5-3 overall, the two most highly rated factors in respondents' decision-making process to install energy-efficient equipment were operating cost (79%) and energy cost savings (86%). Rebates and incentives were more important for small businesses than not-for-profit organizations; small businesses rated both incentives from NYSERDA and rebates from utilities/other sources significantly higher than not-for-profit organizations did. However, significantly more not-for-profits rated the energy audit as "very important" than small businesses.

Figure 5-3. Percent of Respondents Rating Factors as "Very Important" in Deciding to Install Efficient Equipment

Source: Appendix E, Question E1



* Indicates statistically significant differences between groups at the .05 alpha level, or 95% confidence level.

5.1.5 Attitudes on and Barriers to Financing and Loans

Respondents who installed equipment post-audit, but did not receive financing through NYSERDA, were also asked whether they received any loans or financing when they installed their equipment. Most did not (91%); however, 9% (18 respondents) indicated that they had. Of these, five indicated they received financing through their utility, four mentioned a bank or other financial institution, and one stated that they received financing through NYSERDA, although they were not on record as receiving it in the program data.

When considering purchasing or investing in equipment or improvements for their facility, small businesses and not-for-profits need to decide whether to pay for the improvements "in cash" (i.e., without a loan) or to take out a loan to cover all or part of the cost of the improvements. When respondents were asked which they would be most likely to do, responses varied by business type. As shown in Table 5-4 not-for-profit organizations were significantly more likely to say they would pay for improvements "in cash" or without financing (68%, compared to small businesses at 44%). Conversely, small businesses were significantly more likely to say they would take out a loan for the entire purchase (29%, compared to not-for-profits at 10%).

Table 5-4. Likelihood to Use Financing for Building Improvements

Source: Appendix E, Question F1

Reason	Small Business Number	Small Business Percent	Not-For-Profit Number	Not-For-Profit Percent	Overall Number	Overall Weighted Percent
Purchase the equipment or improvement 'in cash,' or without a loan or financing	80	44%	69	68%	150	51%
Use cash for part of the purchase and take out a loan for the remainder	49	27%	23	23%	72	26%
Take out a loan for the entire purchase	53	29%	10	10%	63	24%
Total Respondents	**182**	**100%**	**102**	**100%**	**285**	**100%**

Note: Totals may not sum to 100% due to rounding.

* Indicates statistically significant differences between groups at the .05 alpha level, or 95% confidence level.

When asked to elaborate in their own words why they preferred one option over another, small businesses that preferred to take out loans mentioned a variety of reasons, but many stated that they did not have up-front capital available for large purchases or that large purchases disrupt their cash-flow. One respondent stated that they preferred loans because their business was "*barely surviving*." Another mentioned the benefits of interest-free loans offered through their utility. On the other hand, most not-for-profits who preferred to pay only "in cash" mentioned organization rules or policies against taking out loans. Others noted similar attitudes, ranging from a general preference to avoid debt to save on interest to organizational requirements to work only on a cash basis.

Those respondents who had not received financing through the program were asked if they were aware that the Small Commercial Energy Efficiency program offered financing. Slightly more than half of respondents had heard of it (54%); significantly more not-for-profits (69%) were aware of the financing than small businesses (49%). Most respondents reported hearing about program financing from their energy auditor (34%) or NYSERDA staff (23%). Significantly more small businesses than not-for-profits reported hearing of the financing component from their energy auditor (40% compared to 23%).Only one respondent reported that they heard of program financing from their expeditor. Respondents who were aware of financing were also asked if they had applied for financing; most had not (95%).

Respondents were asked if they had any finance-specific policies in place regarding purchasing equipment or improvements. Most not-for-profits reported having a policy in place; only 19% of not-for-profits did not have any specific policies. Conversely, a majority of small businesses reported no policies on purchasing equipment or improvements (82%). Most often, not-for-profits with policies in place reported needing to have purchases approved by management or a board (54%), or that equipment must be purchased "in cash" (11%).

Respondents who were aware of financing were asked if the way they learned about the financing gave them enough information to participate if they had wanted to. Most respondents (90%) said yes. Those who were aware were also asked to specify, in their own words, if any other additional information could have been provided to help them be more informed about program financing. Several respondents mentioned that they would have liked a list of participating lenders: "*specific financial companies that we could talk to directly for financing*," "*more complete list of lenders,*" and "*nice to have lenders referred in the program.*" Several others mentioned more information on eligibility or requirements, such as whether financing was based on credit history. Finally, one respondent requested a "*financing calculator,*" while another asked for *"examples of specific cases"* eligible for financing.

Those respondents who had installed equipment post-audit and were aware of program financing were asked for reasons why they did not apply for financing through the program. Most frequently, respondents reported that the equipment cost was not high enough to justify the loan (42%). Significantly more small businesses gave this response (48%) than not-for-profits (31%). Four percent of respondents stated that they received financing elsewhere – these sources included internal financing and banks. One respondent noted in a verbatim response that applying for the loan would be "*too much work for my facility for the amount of money we will get back,* " while another stated, "*The organization had the funds available for the installation, therefore we didn't need to seek a loan or financing.*"

Finally, those who had not installed equipment post-audit, but noted they had plans to do so, were asked if they would be interested in program financing. Over half of respondents (55%) said they would be interested.

5.1.6 Firmographics

Businesses were asked to specify for what purpose they used the majority of their space. As shown in Table 5-5, respondents most often noted they used their space for office/professional reasons, followed by retail, food sales/service, service, and education.

Table 5-5. Use of Space at Location

Source: Appendix E, Question B1

Business Use	Small Business Number	Small Business Percent	Not-For-Profit Number	Not-For-Profit Percent	Overall Number	Overall Weighted Percent
Office/professional	51	24%	23	22%	75	24%
Retail*	50	24%	2	2%	52	18%
Food sales or service*	29	14%	2	2%	31	11%
Service*	20	10%	3	3%	23	8%
Education*	3	1%	24	23%	27	7%
Lodging	13	6%	7	7%	20	6%
Industrial/Manufacturing	14	7%	0	0%	14	5%
Religious worship	0	0%	20	19%	20	5%
Warehouse or distribution center	13	6%	1	1%	14	5%
Health care	8	4%	5	5%	13	4%
Data center/computer server farm	3	1%	0	0%	3	1%
Public order and safety	0	0%	2	2%	2	%
Other	5	2%	16	15%	21	6%
Total Respondents	**209**	**100%**	**105**	**100%**	**315**	**100%**

Note: Totals may not sum to 100% due to rounding.

* Indicates statistically significant differences between groups at the .05 alpha level, or 95% confidence level.

Respondents were also asked, as a confirmation, if their business was a not-for-profit organization. Nearly all respondents identified the same business type as was indicated in the sample (95%).[6] Respondents were also asked to categorize their business as franchise, chain, branch office, headquarters, educational facility, single establishment, or something else. Most businesses (76%) identified their business as a single establishment and significantly more small businesses identified as single establishments compared to not-for-profits (83% compared to 55%, respectively). Twenty percent of not-for-profits identified as an educational facility.

Hours of operation data were collected for all respondents. Respondents were asked how many hours per day their business is open in a typical week. This information was then categorized into “high,” “medium,” and “low” hours of operation. “High” hours of operation were classified as businesses that were open more than the hourly equivalent of eight hours a day, seven days a week (56 hours per week). “Medium” level hours of operation were businesses that were open between 40 to less than 56 hours per week. “Low”

[6] Note: For the few cases where the self-identified business type was different from what was indicated in the sample, the business type indicated in the sample was used for weighting and analysis purposes.

businesses were those that were open less than 40 hours per week. Table 5-6 shows the distribution of high, medium, and low hours of operation. On average, respondents noted that their businesses were open 65 hours per week.

Table 5-6. Hours of Operation

Source: Appendix E, Question H1-H3

Source	Small Business Number	Small Business Percent	Not-For-Profit Number	Not-For-Profit Percent	Overall Number	Overall Weighted Percent
Low*	16	8%	26	27%	42	13%
Medium	86	44%	38	39%	125	43%
High*	92	47%	33	34%	125	44%
Total Respondents	**194**	**100%**	**97**	**100%**	**292**	**100%**

Note: Totals may not sum to 100% due to rounding.

* Indicates statistically significant differences between groups at the .05 alpha level, or 95% confidence level.

Respondents were also asked to share the number of people they employ, including full- and part-time, and seasonal employees. Approximately two-thirds of respondents stated that they had ten or fewer full- or part-time employees (67%, “very-small organizations”), while 33% said they had 11 or more full- or part-time employees (“small-mid organizations). Within those groups, 8% of respondents stated that they had no employees at all (perhaps volunteer-run); these were included in the “very-small organization” category. Two percent of respondents stated they had over 100 employees and these were included in the “small-mid organization” category.

Respondents were also asked whether they owned or leased their facilities. Two-thirds of respondents (66%) owned their facilities. The remainder leased all the space (29%), leased some and owned some (3%), or had some other arrangement (2%). Not-for-profits were significantly more likely to own their facility (86%) than small businesses (59%).

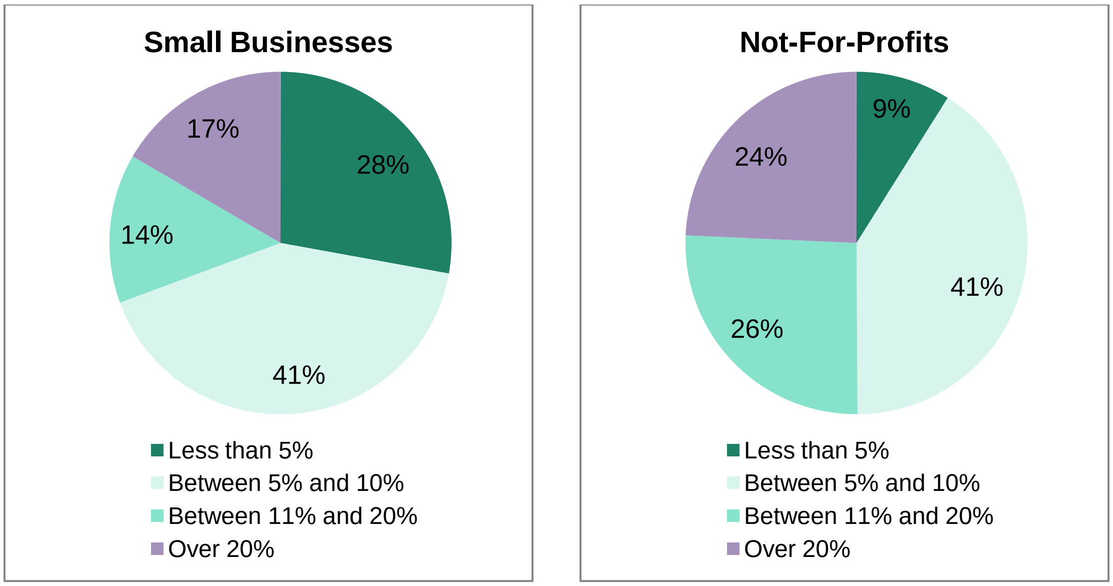
When asked how long they planned to stay at their current location, a majority of respondents said they planned to remain at their location indefinitely (69%). An additional 20% stated that they planned to stay at their location for ten years or more. Not-for-profits were significantly more likely than small businesses to say that they planned to stay at their location indefinitely (89% compared to 62%, respectively). Significantly more businesses that owned all of their facility stated they planned to stay indefinitely (74%), compared to those that leased all of it (53%).

Respondents who leased their facilities were asked about their current lease terms. Most (63%) had lease terms longer than five years. About half of those that leased had three or fewer years remaining on their lease; however, nearly all respondents stated that they planned to renew their lease at their current location (90%).

Respondents were also asked about their energy use. When asked to rate how expensive they felt their energy bill is per month, on a scale of "0-to-10" with "0" being "very inexpensive" and "10" being "very expensive," respondents on average gave a rating of 6.9. When asked what percent of their overall business costs go towards energy bills, responses ranged from 1% to 90%. However, as shown in Figure 5-4, over two-thirds of small businesses and half of not-for-profits said their energy bills accounted for 10% or less of their overall business costs.

Figure 5-4. Percent of Business Costs That Go to Energy Bills

Source: Appendix E Question H4a



Between very-small and small-mid organizations, there were considerable differences between the two groups as far as percent of business costs spent on energy bills. Very-small organizations on average spent 16% of their business costs on energy bills, compared to small-mid organizations that spent 10% of their business costs on energy bills on average. Table 5-7 below details the differences between organization size and the amount of business cost spent on energy bills.

Table 5-7. Percent of Business Costs Spent on Energy Bills by Organization Size

Source: Appendix E, Question H4a

Percent	Small Business Number	Small Business Percent	Not-For-Profit Number	Not-For-Profit Percent	Overall Number	Overall Weighted Percent
Less than 5%*	19	17%	20	36%	39	23%
Between 5% and 10%	47	40%	26	41%	73	40%
Between 11% and 20%*	27	21%	7	12%	34	18%
More than 20%*	28	23%	7	11%	35	19%
Total Respondents	**121**	**100%**	**60**	**100%**	**181**	**100%**

Note: Totals may not sum to 100% due to rounding.

* Indicates statistically significant differences between groups at the .05 alpha level, or 95% confidence level.

Only 10% of respondents felt that they had not done much or had not done anything at their location to save energy; most respondents stated that they had at least made some energy-efficient improvements. However, a majority of respondents also stated that they felt they could make their facility more energy efficient; 82% said they thought they could further reduce energy costs by installing more efficient equipment. Significantly more not-for-profits thought they could save more than small businesses (91% compared to 79%).

Finally, a majority of respondents stated that their business revenue over the last two years had stayed the same or increased (80%); however, small businesses were significantly more likely to say that their revenues increased than not-for-profits (37% compared to 26%). Small-mid organizations were significantly more likely to say that their business revenue increased in the last two years than very-small organizations (40% and 32%, respectively).

5.2 Financing Recipients

As of May 2013, four businesses (the initial participants) in New York received loans for energy-efficient projects through the Small Commercial Energy Efficiency program’s financing component. Two of these financing recipients received audits through the program and were interviewed as part of the quantitative surveys. The remaining two did not receive audits and therefore were interviewed via brief in-depth interview. The following analysis is based only on these four interviews and thus should be viewed as qualitative only.

5.2.1 Experience with Program Financing

When asked why they decided to participate in the financing component of the Small Commercial Energy Efficiency program, all four financing recipients noted cash flow or budget reasons. Two noted that they did it because it was a "*better deal*" or "*to save money for their organization."* Another noted that they did not have the cash for the improvements on hand. When asked who else at their firm was involved in the decision to participate, three of the four mentioned a board or committee, while the fourth noted the president of their company was involved. When asked specifically how they heard of the financing component, one noted they heard from their state senator, whereas another said they did Internet research and found it on NYSERDA's website.

Additionally, all four financing recipients stated that they would have sought loans from another source if financing had not been available from NYSERDA at the time. When asked from where they would have sought other financing, two said either "don't know" or refused to answer; one said generally that they would look to "*different foundations*" that might offer financing, while the other said they would have tried to seek financing at the same lending institution through which they received their NYSERDA loan.

When asked if their equipment installation plans would have changed if the low-cost loan had not been available from NYSERDA at that time, two said that they would have stayed about the same; they would have installed the equipment around the same time. However, the other two financing recipients stated that they would have likely postponed their projects by more than one year had the financing not been available through NYSERDA. When asked how important access to low cost financing was in their decision-making process when deciding whether or not to install the energy-efficient equipment they did, three of the four said it was very important, and one said it was somewhat important.

Financing recipients were asked how easy or difficult, on a scale, some of the aspects of the program's financing component were. Three of the four found it "somewhat" or "very" easy to find information on and apply for the program financing, as well as to work with the lender staff; however, one financing recipient found all three of these to be somewhat difficult. This recipient elaborated, "*At the time, we were one of the first in the state to do it – that's my understanding. The process was not well defined. Filling the forms out was not too difficult, but after that there was a lot of uncertainty by different people –the bank and NYSERDA – as far as 'Okay, what do we do next?' They were still developing a procedure."* This recipient went on to say, *"In terms of goodwill…. Everyone was trying to do what they could do to make it work so there wasn't any ill will or anything like that."* As the respondent stated, this participant was one of the first to participate in the program in the early stages of its offerings.

Finally, in terms of business characteristics of the four financing recipients, three of the four were not-for-profits and one was a small business. When asked how long they planned to stay at their current location, one refused to answer, but the remaining three all said “indefinitely.” Three of the four stated that they owned their building (again, the fourth refused to answer). When asked how expensive they felt their energy bill was on a scale of “0-to-10” with “0” being very inexpensive and “10” being very expensive, responses ranged from a “6” to a “10”, with one respondent saying “don’t know.”

6 Key Findings and Recommendations

This chapter presents the overarching key findings and recommendations stemming from the market and limited process evaluation of the Small Commercial Energy Efficiency program.

The Small Commercial Energy Efficiency program provides walk-through energy assessments (audits) at no charge to small business and not-for-profit customers. The audit results in a written report that provides recommendations for energy-efficient equipment and behavioral improvements, as well as refers customers to NYSERDA energy efficiency and loan program offerings. In 2012 and 2013, the program piloted implementation support services offered through “expeditor” firms, which were separate from the firms that offered the audit. The evaluation confirmed that small businesses and not-for-profits often need considerable support services to aid implementation of energy-efficient projects. Audit firms handing off projects to expeditors for implementation support, as was done during the expeditor pilot, proved challenging. The program is currently redesigning for 2014 to offer “one-stop shop” audit and implementation support to customers and allow for more streamlined program delivery.

In addition to the audit and implementation support services, the program also offers low-interest Small Commercial Energy Efficiency Financing through two loan products to small businesses with 100 employees or less and not-for-profits of any employee size. The financing component saw limited uptake through 2013, and the evaluation confirmed that there are challenges that face small businesses and not-for-profits related to financing.

The evaluation identified several differences in how sub-segments of the program’s target population approach energy efficiency, and confirmed the range of barriers small businesses and not-for-profits face to making energy-efficient upgrades or improvements. For very-small organizations – those with ten or fewer employees – these barriers can often be insurmountable without outside assistance. While the program is filling a key need in the market, these barriers present considerable challenges to effectively serving this population.

This summary represents findings from the first phase of the process and market evaluation for this program. In order to more fully explore the small business and not-for-profit market needs and characteristics, a second phase is planned that will include interviews with nonparticipating financial lenders and nonparticipating small businesses and not-for-profits.

The evaluation team has identified the following overarching findings from this evaluation:

1. The small business and not-for-profit market faces considerable barriers to energy efficiency, many of them financial.

In general, small businesses and not-for-profits face a wide variety of barriers to installing energy-efficient projects, including capital limitations, lack of employee time or priority on energy efficiency, split-incentives due to non-building ownership, and a lack of knowledge regarding efficient improvements. Without outside help, such as the Small Commercial Energy Efficiency program, small businesses and not-for-profits may not be able to overcome these challenges to implementing energy-efficient projects.

A lack of capital for energy-efficient investments is one of the biggest barriers facing small businesses and not-for-profits. Thus, rebates and incentives often play a very important role in customer decision-making processes. Surveyed participants report applying for utility-offered rebates more often than NYSERDA incentives, as utility rebates cover up to 70% for lighting measures, which are the most common audit recommendations installed by customers.

2. Very-small organizations (ten or fewer employees) are characteristically different from small-mid organizations (11-100 employees), which presents challenges when it comes to energy efficiency.

GJGNY funding for energy audits is limited to energy audits and implementation support for small businesses and not-for-profits with less than ten or fewer full-time employees ("very-small organizations"), and NYSERDA requires that customers seeking audits also fall below a ceiling of 100kW of demand. The ARRA funding, which expired in September of 2013, permitted the Small Commercial Energy Efficiency program to offer program services to organizations that had between 11 to 100 employees and not-for-profits of any employee size ("small-mid organizations") with less than 100kW of demand.

While very-small organizations reported paying a higher percentage of their overall operating costs towards energy bills than small-mid organizations, their level of equipment installation post-audit was significantly[7] lower than small-mid organizations. Small-mid organizations were also more likely than very-small organizations to say that their business revenues had increased over the past two years. Overall, program implementation staff in general agreed that the two groups face different challenges and different needs when it comes to energy efficiency. Audit providers noted that very-small organizations have very little capital to spend on improvements. Most of the lenders agreed that very-small organizations face considerable challenges in securing financing, even through non-traditional channels such as community

[7] The significance, or alpha, level for all comparisons within this report was set at .05 (i.e., a 95% confidence level) using a z-test.

development financial institutions, as these very-small organizations may face deeper long-term planning challenges than small-mid organizations. The Phase 2 nonparticipant research will more broadly explore the needs and characteristics of these two populations.

3. Not-for-profits experience different challenges and approach energy efficiency differently than small businesses overall.

The evaluation identified several key differences between not-for-profits and small businesses, both from primary research with participants and through qualitative research with lenders and expeditors. Participating not-for-profits were more likely than small businesses to have installed equipment post-audit, but less likely to have applied for rebates or incentives. Participating not-for-profits were also much more likely to have policies in place regarding equipment purchases, while most small businesses had no such policies. Not-for-profits also tended to spend a higher amount of their operating budget on energy compared to small businesses.

In summary, small businesses, especially those that are very-small, may need more follow-up support to move them through the implementation process. Small businesses appear to need more assistance than not-for-profits in getting access to funding, incentives as participating small businesses were less likely to implement efficient equipment post-audit, and rated access to rebates and incentives as very important. Conversely, not-for-profits tend to be more likely to implement equipment on their own without rebates or incentives, but may still need the energy audit or technical assistance in order to get projects approved from upper management. To further explore these differences, this topic will be a key item of research for the Phase 2 nonparticipant customer research, to assess whether these findings hold true in the general population of small businesses and not-for-profits.

4. Currently, the program primarily serves building owners.

Businesses that lease their facilities can be difficult to serve due to split-incentives. In general, program implementation staff agreed that split-incentives are a major barrier to energy-efficient project implementation for small businesses and not-for-profits. Audit firms discussed the complexities of serving organizations that do not own their facilities, and some respondents said they consequently specifically target owned facilities. More participants owned their property compared to leasing it, and significantly[8] more businesses that owned their property reporting installing equipment post-audit than those that leased. Not-for-profits were significantly more likely to own their facility (86%) than small businesses (59%). Of those participants that leased, nearly all had plans to renew their lease at their location. The businesses interviewed for this effort are participants only; therefore, in Phase 2 the nonparticipant customer research

[8] The significance, or alpha, level for all comparisons within this report was set at .05 (i.e., a 95% confidence level) using a z-test.

will assess whether these characteristics are similar for the small businesses and not-for-profits that have not yet participated in the program. Differences in length of tenure and plans to move or only lease short-term may be important market characteristics for the program to incorporate into planning.

5. On top of the barriers faced by small businesses and not-for-profits as they seek to implement audit recommendations, small businesses and not-for-profits face specific barriers to accessing financing and loans.

In addition to the barriers discussed above (capital limitations, lack of employee time, split-incentive, and a lack of knowledge), businesses face additional challenges when it comes to accessing financing. The barriers to accessing financing include poor credit or already-high debt. Although not-for-profits were more aware of program offered financing than small businesses, not-for-profits reported that they were less likely to be able to take advantage of program-offered financing due to restrictions or policies governing financing within their organization charter. Participating lenders also reported that one challenge to working with not-for-profits is that they tend to face more funding uncertainty, as often their annual operating budget depends on grants or charitable donations, which can fluctuate.

6. Customer surveys indicate that one explanatory factor for the low uptake in program-offered financing for customers who have implemented projects is that they are completing smaller projects, which may not necessitate loans.

A little more than half of program participants were aware of program financing, but only four participants have received the program financing at the time of the evaluation. The participant survey identified that customers most commonly did not take advantage of loan options because they believed the size or cost of their efficiency project did not justify a loan. A large majority of participant projects were lighting projects, which tend to be less expensive, with a smaller portion being larger HVAC or insulation projects.

In addition, participating financial lender staff reported that they have considerable experience working with the small business and not-for-profit market. However, from qualitative discussions with program-participating financial organizations, some lenders may not be as familiar with the challenges to lending specifically for energy efficiency projects, such as discussing with customers payback periods and monthly energy savings compared to the loan payment.

Conclusions and Recommendations

The program appears to be filling a need in the market and is adjusting to better serve small businesses and not-for-profits in New York and address challenges encountered during 2013. This evaluation offers the following conclusions and recommendations.

Conclusion 1: A program objective is to encourage participating customers to install energy-efficient equipment. The research showed that small-mid organizations were more likely than very-small organizations to implement audit recommendations. The expiration of ARRA funding limits the program to serving the very-small organizations per GJGNY rules, which face many challenges to implementing audit recommendations.

- **Recommendation 1:** Consider options to further support the financial and decision-making needs of very-small organizations. For example, NYSERDA might work with audit and implementation support contractors to offer to meet jointly with the property owners and tenant as part of the implementation support offered through the program to overcome the split incentive barrier. Another option could be offering a longer-term loan as part of the financing component, which may make monthly payments more manageable for very-small organizations, if they meet both legislative requirements and small businesses' shorter planning horizons.

- **Recommendation 2**: Continue to streamline the program delivery through one audit and implementation support contractor per region, and ensure all program actors coordinate efforts, to ensure timely follow-up and consistent messaging. This will be especially important as the program turns its focus to very-small organizations, which may need deeper-level support to implement energy efficiency projects. Consolidating audit and implementation support services to one contractor per region, as the program is currently doing, should allow these contractors to provide this deeper-level support to organizations that need it, through continual follow-up, hand-holding through rebate processes, etc.

Conclusion 2: There has been limited uptake in the financing portion of the program for many reasons, several of which are outside the program's control.

- **Recommendation 3:** As part of the recent program design change to have one contractor offering both audits and implementation support per region, ensure that all program market actors (e.g., audit firms, contractors) have the tools necessary to discuss financing in-depth with customers at an early stage, and that there is continual follow-up with customers throughout the implementation process. Working with audit providers to help them identify projects that are good candidates for financing, such as more substantial improvements or large retrofits, may help as well. If further engaged in energy efficiency by NYSERDA, participating lenders may be in a good position to provide follow-up as well, as all lenders interviewed reported long-term experience lending to the small business and not-for-profit market.

Appendix A: Participating Lender Staff Interview Guide

A. **Describe your role within your institution and your interactions with the Small Commercial Energy Efficiency Financing Program**

1) Role at financial institution
    - Job responsibilities – specifically focusing on lending and customer groups they interact with
    - Length of time worked in the financial sector
    - Length of time working at this institution

2) Responsibilities or role regarding the Small Commercial Energy Efficiency Financing Program
    - When did your institution become involved/learn of Program
    - What are your responsibilities as they pertain to participation in the Program?

B. **Small business and not-for-profit market**

3) Think about your commercial accounts. What percent of your commercial accounts are a “small business” (i.e., a business with under 100 employees)? What percent of your commercial accounts are with not-for-profits?

4) Has the percentage of small businesses working with your institution increased or decreased since you began working here? Has the percentage of not-for-profits working with your institution increased or decreased since you began working here?

5) Has the number of commercial accounts that you would consider medium or large-sized businesses increased or decreased since you began working here?

6) Do you think small businesses are more or less likely to take advantage of financing in general than other businesses? Why?
    a. Probe on: Budget constraints? Budget cycles? Reticence to take on debt? Long-term planning challenges?

7) Do you think not-for-profits are more or less likely to take advantage of financing? Why?
    a. Probe on: Charter prevents taking on debt? Reticence to take on debt? Budget constraints? Long-term planning challenges?

8) What are barriers for small businesses and not-for-profit businesses in securing financing?
    a. Probe on: Poor credit rating? Low debt service ratio? Not in business for a sufficient period of time? Other?
    b. What are ways to overcome those barriers?

9) Of the loan applications you receive, what percentage is from small businesses? What percentage is from not-for-profit organizations? What percent of these are accepted? What are the reasons for denial?

C. Program Interactions

10) How did you learn about the Small Commercial Energy Efficiency Financing Program?
    a. Probe on: NYSERDA website? Email? Contacted by NYSERDA? Contacted by a customer? Press release?
    b. What are the benefits of participating for your institution? Are there any negatives/down-sides for participating?

11) Your institution has signed agreements indicating they will provide participation loans and will originate On-Bill Recovery Loans on behalf of NYSERDA.
    a. As you are probably aware, with the participation loan, NYSERDA and your institution will share in funding the principal of the loan. How likely is it that your institution will offer participation loans through the Program to your customers? What factors or barriers influence whether a participation loan is offered?
        i. Probe on: Timing issues for you or the borrower? Customer/borrower interest? Program rules? Lack of information? Need for staff training? Other?
    b. With the On-Bill Recovery Loan, your institution will receive an origination fee of $300 for originating a loan on behalf of NYSERDA. In addition title search fees are paid by NYSERDA. How likely is it that your institution will originate On-Bill Recovery Loans for your customers? What factors or barriers influence whether your institution originates On-Bill Recovery Loans?
        i. Probe on: Origination fee amount per loan? Institution does not originate/broker loans? Credit worthiness or other program requirements? Your institution's policies for booking loans as opposed to originating them? Other?

12) How many Small Commercial Energy Efficiency Financing loan applications have you received to date? How many of these have been accepted? What are the reasons for denial?

13) Has your institution reviewed an application where the customer was seeking the on-bill recovery financing product? Was the application accepted? If not, why was it denied?

14) Does your institution have participation goals for the program (e.g., X number of loans per quarter)? If so, what are they?

15) What are the steps to participate in financing from the customer's point of view? Are there any issues with how the application process works?

16) What are the steps to participate from your institution's point of view? Are there any issues with how the application process works from your side?

17) Do you market or discuss the program with your customers? If so, how? If not, why not? Are there materials that NYSERDA could provide that would help your institution market the program and increase participation? What kind? Fact sheets? Instructions? FAQs? Other?

18) Do you have any suggestions on how NYSERDA could work with participating lenders to promote or market the program to customers?

19) Did the program provide training or program materials to you? If so, what? Were the training/program materials useful?

20) How would you rank the following methods of training:
    a. Webinars
    b. Regional trainings with multiple lenders in attendance
    c. Discrete trainings held at your institution's main office
    d. Other? Describe.

21) Do you have any customers who received an energy assessment through the Small Commercial Energy Efficiency program, but chose to access financing outside of the program? If so, why do you think that is?

22) There are many reasons why businesses may or may not be interested in financing. What motivates small businesses or not-for-profits when seeking out financing, specifically through the program? What are some reasons why they might not be interested?
    a. Probe for:
        i. Interest rates
        ii. Ability to access the program through their normal lender
        iii. Meeting program eligibility requirements
        iv. Lack of awareness of the participation and on-bill recovery loan options
        v. General budget or access to capital issues
        vi. Other market issues

23) How can the program increase interest in energy efficiency loans for small businesses and not-for-profits?
    a. Probe for:
        i. Marketing, i.e., increasing awareness of the program
        ii. Accessibility, i.e., increasing the number of lenders offering the financing products
        iii. Eligibility
        iv. Other

24) In your experience, what is the best way to reach and engage small businesses and not-for-profits? How would you recommend the program best reach these customers to discuss program financing? Probe for marketing strategies and channels.

25) What is your level of satisfaction with the program so far? Why is that?

26) Do you think your institution will participate in the program in the future? Why or why not?

27) Does your institution participate in any other energy-efficiency programs offered in New York? If so, which ones? How do they compare to the NYSERDA Small Commercial Energy Efficiency program?

28) Do you have any suggestions on how NYSERDA might increase program participation from financial institutions and lenders? How might NYSERDA make the program more attractive to lenders?

INTRO TO JOBS QUESTIONS: Finally, I'm going to ask you some questions about jobs and workload relating to the GJGNY SB/NFP program.

D. **Screening**

QS1. As a result of your firm's participation in offering Green Jobs Green New York (GJGNY) financing for the Small Business/Not-for-Profit program (SBNFP), have you experienced either a permanent or temporary increase in workload for your company since the loans were first offered in June 2011?

1 Yes

2 No ----------------------> SKIP TO END

D Don't know ------------> SKIP TO END

R Refused ----------------> SKIP TO END

QS2 [IF QS1 = YES] Considering all of the activities that you and others in your organization have performed to date related to GJGNY loans for the SBNFP, has your company: [CHECK ALL THAT APPLY]

a. Needed to hire additional staff for any position because of SBNFP loan activities?

1 Yes
2 No
D Don't know
R Refused

b. Been able to retain staff that would otherwise have been let go?

1 Yes
2 No
D Don't know
R Refused

c. Increased the responsibilities of existing staff because of SBNFP loan activities? This could be due to a promotion or specialized training or knowledge acquired.

1 Yes
2 No
D Don't know
R Refused

E. **NAICS Code**

QN1. [IF QS2a =YES OR QS2b = YES OR QS2c = YES] What is your company's primary business function?

1. Commercial Banking 522110

2. Savings Institutions 522120

3. Credit Unions 522130

4. Other [Specify____________________][VERY IMPORTANT: Record specific details of company primary business function.]

[IF QS2a =YES OR QS2b = YES OR QS2c = YES, READ] Some of the following questions in this survey will ask about hiring, retention, or promotions in your company. These questions will ask for information in terms of number of jobs and also in terms of number of FTEs. In answering the questions in terms of FTEs, please keep in mind that an FTE is the total hours worked in a job divided by the number of hours in a full-time schedule. So one full time job is equal to 1 FTE, and one part time job working 10 hours of a 40 hours full-time week of is 0.25 FTEs.

F. Job Additions/Retentions

QJA1. [IF QS2a = YES]

a. For which positions in your company were jobs added because of SBNFP loan activities?

b. At which location(s) in New York State were jobs added because of SBNFP loan activities?

c. How many total Full Time Equivalents (FTEs) were added at that position?

d. How many of the added FTEs were permanent positions?

[Pull down definition for FTE: An FTE is the total hours worked in a job divided by the number of hours in a full-time schedule, so one full time job is equal to 1 FTE, and one part time job working 10 hours of a 40 hour full-time week is 0.25 FTEs.]

a. Position that was added because of SBNFP loan activities	b. Cities/towns in New York State where position was added	c. Total FTEs added	d. How many of the added FTEs were permanent positions?
Example: Loan Officer	*Albany, Buffalo*	*1.4*	*1.0*

QJA2. [IF QS2a = YES] What is the 2013 typical hourly wage range for the positions added because of SBNFP loan activities?

Position Added [LIST QJA1a]	2013 Typical Hourly Wage Range									
	Under $10	$10.00-$14.99	$15.00-$19.99	$20.00-$24.99	$25.00-$29.99	$30.00-$34.99	$35.00-$39.99	$40.00-$44.99	$45.00-$49.99	Over $50

QJA3. [IF QS2b = YES]

a. For which positions in your company were jobs retained because of SBNFP loan activities?

b. At which location(s) in New York State were jobs retained because of SBNFP loan activities?

c. How many total Full Time Equivalents (FTEs) were retained at that position?

[Pull down definition for FTE in e: An FTE is the total hours worked in a job divided by the number of hours in a full-time schedule, so one full time job is equal to 1 FTE, and one part time job working 10 hours of a 40 hour full-time week is 0.25 FTEs.]

a. Position that was retained because of SBNFP loan activities	b. Cities/towns in New York State where position was retained	c. Total FTEs retained
Example: Data Processor	*Albany, Buffalo*	*1.4*

QJA4. [IF QS2b = YES] What is the 2013 typical hourly wage range for the positions retained because of SBNFP loan activities?

Position Retained [LIST QJA3a]	2013 Typical Hourly Wage Range									
	Under $10	$10.00-$14.99	$15.00-$19.99	$20.00-$24.99	$25.00-$29.99	$30.00-$34.99	$35.00-$39.99	$40.00-$44.99	$45.00-$49.99	Over $50

G. Existing Position Wage Level Changes

QEP1 [IF QS2c = YES]

a. Which positions of existing staff saw an increase in responsibilities because of SBNFP loan activities?

b. How many FTEs in that position experienced an increase in responsibilities?

c. How many of the FTEs in that position that experienced an increase in responsibilities saw an increase in their wage level? This could be due to a promotion or specialized training or knowledge acquired.

d. In what cities or towns in New York State were the staff members who saw an increase in wage level in that position located? [multiple cities/towns possible for response] RECORD VERBATIM.

a. Position that saw an increase in responsibilities because of SBNFP loan activities	b. Number of FTEs in that position that experienced an increase in responsibilities	c. Number FTEs in that position that experienced an increase in responsibilities and saw an increase in their wage level	d. Cities or towns in New York State where position saw an increase in wage level
Example: Clerk	*2.0*	*1.5*	*Albany, Buffalo*

QEP2. [FOR EACH STAFF MEMBER WITH INCREASED WAGES MENTIONED IN QEP1c, ASK]

a. What was the average hourly wage range for this position prior to the wage increase?

Position [LIST QEP1a IF QEP1c = YES]	Hourly wage range prior to increase									
	Under $10	$10.00-$14.99	$15.00-$19.99	$20.00-$24.99	$25.00-$29.99	$30.00-$34.99	$35.00-$39.99	$40.00-$44.99	$45.00-$49.99	Over $50

b. What was the average hourly wage increase for this position that saw a wage increase?

Position [LIST QEP1a IF QEP1c = YES]	Hourly wage range prior to increase						
	Under $2.00	$2.00-$3.99	$4.00-$5.99	$6.00-$7.99	$8.00-$9.99	$10.00-$11.99	Over $12.00

H. Projected Job Additions

QPJ1. [IF Qs2a = YES OR QS2b = YES, READ "You have estimated that you have added or retained a total of [sum of QJA1c + sum of QJA3c] FTE positions to date because of SBNFP loan activities."]

a. [ALL RESPONDENTS] Do you anticipate that your company will add staff because of SBNFP loan activities over the next 2 years (by 2015)?

1 Yes

2 No -----------------------> SKIP TO END

D Don't know ------------> SKIP TO END

R Refused ----------------> SKIP TO END

b. [IF QPJ1a = YES] At what positions do you anticipate adding staff over the next 2 years because of SBNFP loan activities?

c. [IF QPJ1a = YES] Approximately how many [IF QS2a = YES OR QS2b = YES, READ "more"] FTEs do you anticipate adding at each position over the next 2 years because of SBNFP loan activities?

d. [IF QPJ1a = YES] How many of the FTEs at each position that you anticipate adding over the next 2 years are likely to be permanent jobs?

a. Positions with added staff over next 2 years (by 2015) because of SBNFP loan activities	b. Estimate of how many more FTEs will be added over next 2 years because of SBNFP loan activities	c. Estimate of number FTEs to be added over the next 2 years that are likely to be permanent jobs
Example: Office Staff	*2*	*1*

Thank you for your time.

I. **Wrap up**

Is there anything else you'd like to share?

Appendix B: Audit Provider Staff Interview Guide

J. **Role in program and background information**

29) Responsibilities or role of the interviewee regarding the Small Commercial Energy Efficiency program
    a. When became involved
    b. Main responsibilities
    c. On average, what percent of your workload is spent on the program monthly?
30) Do you work with other NYSERDA programs? If so, which ones?
31) As you understand it, what are the goals of the Small Commercial Energy Efficiency program?
32) Does your organization have specific goals or performance requirements related to this program? If so, what are they?

K. **Program Outreach**

33) What outreach activities are you using to recruit small businesses and not-for-profits? (Probe items like email, cold calls, website, seminars, events, training sessions, direct mail, advertising, direct sales efforts.)
    a. What is the frequency of each method?
    b. Do you do targeted outreach to specific segments of the small business/not-for-profit market? If so, which ones? How have you differentiated from utility sponsored programs (e.g. SBDI)? Do you tailor outreach messages for particular customer segments? Does this include efforts to identify/recruit energy intensive customers or others likely to have cost-effective projects and a reasonable interest in project implementation?
34) In your opinion, what marketing/outreach tactic(s) are most effective with the small business/not-for-profit market? Please explain.
    a. Have you been able to implement these methods for the Small Commercial Energy Efficiency program? If so, what results have you found?
35) In your experience, what are the main reasons customers are interested in receiving an energy audit from NYSERDA? (Probe: audit is free; high bills, unbiased information; all fuels; costs and savings estimates for general opportunities; green/environmental benefits; interested in replacing inefficient equipment)

L. **Program Audit**

36) How do customers sign up for an audit?
    a. Do you provide customer assistance with the Consolidated Funding Application CFA)? Could you estimate the time involved for you and the customer?
    b. How long does it typically take from the time a customer calls your firm to the time their audit is scheduled?
    c. How is customer and audit data tracked and reported?

37) Can you describe a typical audit you conduct through the program?

   a. How does is the on-site audit and data collection initiated? Does this include an introduction/interview to gain perspective on the customer's primary interests, priorities, needs & plans?

   b. What systems do you normally look at? Are there any differences in the audits you do depending on business type? If so, can you provide an example? How is data collected (paper or electronic)?

   c. How long is a typical audit, start to finish?

   d. Do some customers ask to include specialty equipment or greater levels of detail on certain equipment? How much time does this typically add to the audit?

   e. Do customers typically accompany you during the audit?

   f. How are the results communicated and the report provided?

   g. Do you have any suggestions for improvements on the audit and reporting process, including the report itself?

38) How do you educate customers on potential energy-efficient projects at their facilities?

   a. Are there any approaches that work particularly well with the small business/not-for-profit market? Any that do not work with the small business/not-for-profit market?

   b. Are there any ways you think you could improve on the education customers receive in the audit? Are there ways to make the information more actionable – paving the way to project implementation?

39) Do you have a sense for how many customers already have plans to install equipment before they receive an audit? How many do NOT already have plans? For those that already have plans, do you have a sense of the extent to which plans are more ideas, or tentative/preliminary; and whether the audit is requested to confirm/clarify expected savings or costs?

M. Customer Interactions and Satisfaction

40) What are customers' frequent questions or concerns? How do you address these? What messages do you feel are most successful in encouraging them to move forward with projects?

41) What is the decision making process like for small businesses? How about not-for-profits?

42) Do customers generally understand program requirements for receiving the audit? If not, what don't they understand? Do customers understand who is sponsoring the program? Is there any confusion with other energy efficiency programs and sponsors in New York? If so, how do you address this confusion?

43) What feedback have you received from customers about the program?

N. Small Business/Not-for-profit Market

44) What percentage of small business customers that you interact with own their building? How about not-for-profits?

45) What challenges do you see in working with the small business/not-for-profit market? (Probe for: split incentive barrier, funding challenges, decision making processes, understanding of energy efficiency, pace of project development, hand-offs between contractors, needs of sector, etc.)

46) From your perspective and experience, is the program reaching the right customers? Do program eligibility requirements present challenges in explaining or recruiting for the program? Do the eligibility requirements present constraints in reaching longer operating hour and or higher energy intensity customers? Do you have a sense of how many or what types of customers are ineligible as a result? Are there any groups or subsectors that you think are underserved? Do you think the program could or should expand the breadth of customers it serves?

47) Currently the program is limited to serving small businesses with 10 or less employees with GJGNY funds. Approximately what percentage of the customers you have served are in this category? Do you think this represents the general population of small businesses in New York? Are there small businesses the program isn't able to reach because of this limit? Approximately what percentage of customers served have had less than 100 employees?

48) Have you worked with any other small business or not-for-profit programs through other Program Administrators (e.g. utilities) or in other states? If so, which ones? What types of customers are eligible for the program (probe for: small business, not-for-profit, demand, employee size, etc.)? How well have these other programs been able to serve the market? Are there insights or suggestions from this experience that you could share?

O. **Incentive payments**

49) Do you discuss the available incentives with customers when you conduct the audit? If so, what are the customer's reactions to incentive options?

50) What percentage of audit participants have expressed interest in receiving incentives for improvements? Do you have a sense of the extent to which available incentives is likely to help increase frequency of project implementation?

51) What reasons have customs given as to why they do not plan to apply for incentives?

Probe for:

1. Application process
2. Availability
3. Eligibility
4. Awareness
5. Customer capital/budget issues
6. Other issues

52) Do they generally understand next steps to receive incentives? If not, what don't they understand?

P. **Financing**

53) Do you discuss the financing portion of the program with customers when you conduct the audit? If so, what are the customer's reactions to the participation loan product? To the OBR loan?

54) What percentage of audit participants have expressed interest in financing (prior to auditor mentioning it) (probe for primary motivations, e.g. positive cash flow, lack of capital)? Do you have a sense of the extent to which financing is likely to help increase frequency of project implementation (probe for whether financing is an advantage for particular sub-sectors, types or scale of projects)?

55) Do you have a sense of the percentage of customers that are already aware of the financing offered through the program? How did they become aware of the financing? (Probe: website, CBO, Small Business Development Center, media)

56) What reasons have customs given as to why they do not plan to participate in program financing?

    Probe for:

    1. Interest rates
    2. Availability
    3. Eligibility
    4. Awareness
    5. Customer capital/budget issues
    6. Other issues

57) Do they generally understand next steps to receive financing? If not, what don't they understand?

58) What approaches do you think might increase interest in GJGNY loans for small businesses and not-for-profits?

    Probe for:

    1. Marketing
    2. Accessibility
    3. Eligibility
    4. Other

Q. **Wrap-up**

59) What do you feel are the major strengths and weaknesses of the program?

60) How could the program be more effective? What other program improvements would you suggest?

61) If you could change one thing about the program, what would it be?

Thank you for your time.

Appendix C: Expeditor Staff Interview Guide

A. **Role in program and background information**

1) Responsibilities or role regarding the Small Commercial Energy Efficiency program
    a. when became involved
    b. main responsibilities
    c. on average, what percent of your workload is spent on the program monthly?
2) Do you work with other NYSERDA programs? If so, which ones?
3) Who do you work with regarding the Small Commercial Energy Efficiency program? Probe for internal staff, NYSERDA staff, etc.

B. **Program Operations and Customer Interactions**

4) As you understand it, what are the goals of the Small Commercial Energy Efficiency program?
5) What goals do you strive to meet regarding the program?
6) Can you describe you interactions with Small Commercial Energy Efficiency program participants?
7) How do you typically follow-up with customers to encourage them to proceed with the installation? Are there any approaches that work particularly well with the small business/not-for-profit market? Any that do not work with the small business/not-for-profit market?
8) What are customers' frequent questions or concerns about the program? How do you address these? What messages do you feel are most successful in encouraging them to move forward with projects?
9) In your experience, what percent of customers you have spoken with own their building/equipment? What percent rent or lease?
10) In your experience, what is the decision making process like for small businesses? How about not-for-profits? (Probe: Is the decision to install energy-efficient equipment made at the facility?)
11) Do customers understand program requirements?
12) Do customers understand the purpose of the program and who is sponsoring it? Is there any confusion with other energy efficiency programs and sponsors in New York? If so, how do you address this confusion?
13) What feedback have you received from customers about the program?
14) From your perspective and experience, is the program reaching the right customers? Are there any groups you think are underserved? Do you think the program could or should expand the breadth of customers it serves?

15) Currently the program is limited to serving small businesses with 10 or less employees. Do you think this represents the general population of small businesses in New York? Are there small businesses the program isn't able to reach because of this limit?

16) Have you worked with any other small business or not-for-profit programs? If so, which ones? How are they similar to NYSERDA's program? How are they different?

C. **Financing**

17) Do you discuss the financing portion of the program with customers when you follow up with them? If so, what are customer's reactions to it?

18) How do program participants become aware of the financing offered through the program? How many are already aware when you tell them about it?

19) Have customers given any reasons why they haven't, or plan not to, participate in program financing?

    Probe for:
    1. Interest rates
    2. Availability
    3. Eligibility
    4. Awareness
    5. Customer capital/budget issues
    6. Other issues

20) Do you have any ideas that might increase interest in GJGNY loans for small businesses and not-for-profits?

    Probe for:
    1. Marketing
    2. Accessibility
    3. Eligibility
    4. Other

D. **Wrap-up**

21) What do you feel are the major strengths and weaknesses of the program?

22) How could the program be more effective? What other program improvements would you suggest?

23) If you could change one thing about the program, what would it be?

Thank you for your time.

Appendix D: Program Staff Interview Guide

A. **Role in program and background information**

1) Responsibilities or role regarding the SB/NFP program
   - When became involved
   - Main responsibilities
   - On average, what percent of your workload is spent on the program monthly?

2) Do you work with other NYSERDA programs? If so, which ones?

3) Who do you work with regarding the SB/NFP program? Probe for other program staff, other NYSERDA departments, GJGNY groups, utilities, expeditors, auditors, contractors, financial lenders, customers, stakeholders, etc.
   a. Can you describe how you interact with these different groups? What level of coordination is required for each of these groups?

B. **Program Operations**

4) How are the goals set for this program? Probe for both savings goals as well as participation/implementation goals.

5) How has the expeditor pilot worked? Do you think expeditors have been successful in encouraging implementation?

6) We will be speaking with expeditors. Is there anything in particular you'd like to learn from that group? Any questions you'd like us to ask?

7) We will also be speaking with audit contractors. Do you think they have been successful in both conducting quality audits and encouraging further participation? Are there particular issues or questions we should address with that group?

8) What are some changes that program staff are considering for 2013 and forward? Besides ones we've already discussed, are there any ideas or issues the evaluation team can gather more information on to help program staff in considering changes?

C. **Customer Marketing and Interactions**

9) What activities have you been doing to promote the program?

10) What type of customers do you think are the best target for the program (business type, etc.)? Are there particular groups you're especially interested in learning more about? Are there any questions or issues you'd like us to target to any market sub-groups?

    Probe for:

    a. Current marketing/targeting strategies
    b. Effectiveness of current efforts/messaging and where additional effort could be made
    c. Proposed best ways to reach groups/sub-groups

11) What are the barriers to getting small businesses/not-for-profits to conduct an audit through the program? Are there additional issues or concerns we should explore during our evaluation?

12) What do you see as barriers to small businesses and not-for-profits installing energy-efficient equipment overall? How do you think the program can help them overcome these barriers?

13) Do you think customers understand the purpose of the program and who is sponsoring it? Is there any confusion with other energy efficiency programs and sponsors in New York? If so, how do you address this confusion?

14) Is there a particular group we should focus on for nonparticipant customer research? Probe for customers 100-250kW, business types, other groups.

15) Aside from issues we've already discussed, is there anything else you're interested in learning from the nonparticipant research?

D. Financing

16) What are your thoughts on the integration of the financing aspect into the program in 2011? Did the integration of program financing have any effect on customer interest or uptake in the program overall?

17) How do program participants become aware of the financing offered through the program?

18) What are the steps to participate in financing from the customer's point of view? Are there any issues with how the application process works?

19) Do you have any thoughts on why there has been little uptake in GJGNY loans to-date?

    Probe for:

    i. Interest rates

    ii. Availability

    iii. Eligibility

    iv. Awareness

    v. Customer capital/budget issues

    vi. Other issues

20) Do you have any ideas of might increase interest in GJGNY loans for small businesses and not-for-profits?

    Probe for:

i. Marketing

ii. Accessibility

iii. Eligibility

iv. Other

21) We will be/are speaking with financial lenders. Besides what we've already discussed, are there any issues or questions you'd like us to address with them?

E. **Wrap-up**

22) What do you feel are the major strengths and weaknesses of the program?

23) How could the program be more effective? What other program improvements would you suggest?

24) If you could change one thing about the program, what would it be?

Appendix E: Participating Customer Survey

Sample variables

The following fills will be used throughout the survey. These fills are program and measure specific. Some of these may need to be revised once Tetra Tech has had a chance to examine the participant database in detail.

[PROGRAM] Green Jobs Green New York Small Business/Not-for-Profit Program, Green Jobs Green New York Energy Efficiency Financing

[FINANCE] Received program financing flag

[SB] Small business

[NFP] Not-for-profit

[GJGNY] GJGNY funded audit

[ARRA] ARRA funded audit

[PTYPE] Type of participant (Determined after confirmation in survey)

1. Audit participants that also participated in NYSERDA program but not financing (AP-EFP)

Audit participants that also participated in program-offered financing (whether or not they received rebates from NYSERDA) (AP-F)

Audit participants that have not yet implemented any equipment (AP-ONLY)

Audit participants that have implemented equipment on their own without EFP or F (AP-SELF)

[UTILITY] Electric and/or natural gas energy provider

[EXPEDITOR] Firm that followed up with customer post-audit

[ADDRESS] Address(es) where measure implemented

[CONTACT NAME] Contact listed in participant files

[BUSINESS NAME] Business listed in participant files

[PROGRAM CONTACT AND PHONE NUMBER]
Carley Murray, NYSERDA - 1-518-862-1090, extension 3277.

[MULTIPLE] Participated at more than one location in New York

[LOCATIONS] Number of locations in New York that received audit through program

[AUDIT COMPLETE DATE] Date audit was completed through the program

Introduction

Hello, my name is **[interviewer name]**, and I'm calling on behalf of the New York State Energy Research and Development Authority, NYSERDA, regarding your firm's participation in their **[PROGRAM].** May I speak with **[CONTACT NAME]?**

1. Yes
2. No [attempt to convert]

I'm with **[RESEARCH FIRM NAME],** an independent research firm. I am calling to learn about your experiences with **[PROGRAM].**

We want to assure you that this interview will be kept confidential to the extent permitted by law. We will report all responses in aggregate and will not attribute any comments to you or your company.

(IF EXPEDITOR <> 0) You may have received a call from someone at [EXPEDITOR] to follow up on your audit and offer support for energy efficiency projects. Today, we are calling to understand your experiences and satisfaction with the program, and uncover possible ways to improve the program. Your feedback to both us and [EXPEDITOR] is very valuable.

Interviewer Tack-up

(Who is doing this study: NYSERDA has hired firms to evaluate the program. As part of the evaluation, we're talking with customers that participated in the program to understand their experiences and satisfaction with the program, and uncover possible ways to improve the program.)

(**Why are you conducting this study**: Studies like this help NYSERDA better understand customers' need for, and interest in, energy efficiency programs and services, and help identify possible areas for improvement.)

(**Timing**: This survey should take about 15-20 minutes of your time. Is this a good time for us to speak with you? IF NOT, SET UP CALL BACK APPOINTMENT OR OFFER TO LET THEM CALL US BACK AT 1-800-XXX-XXXX.)

(Sales concern: I am not selling anything; we would simply like to learn about your experience with the program. Your responses will be kept confidential and not revealed to anyone unless you grant permission. If you would like to talk with someone from NYSERDA about this study, feel free to call **[program contact and phone number]**.)

(Program name: You may also know of the program as the Small Commercial Energy Efficiency program).

(Additional questions on confidentiality: The NYS Freedom of Information Law provides for public access to information possessed by state government, except where a designated exception to disclosure applies. As a public entity subject to the Freedom of Information Law, NYSERDA therefore cannot strictly guarantee the confidentiality of any information submitted to it.)

(NOTE: For all questions, "DON'T KNOW" and "REFUSED" will be coded if offered as a response.)

Identification of Decision-Maker

C1 According to our records….

(IF MULTIPLE = 0, SHOW): your business/facility **[BUSINESS NAME]** at **[ADDRESS]** in **[CITY]** received a free audit through the **[PROGRAM]** around **[AUDIT MONTH] [AUDIT YEAR]**….

(IF MULTIPLE = 1, SHOW): your business received a free audit at **[LOCATIONS]** locations or buildings in New York, including **[BUSINESS NAME] at [ADDRESS],** through the **[PROGRAM]** in **[AUDIT YEAR]…**

[IF FINANCE = 1: "and used program financing for one or more projects."]

Is this information correct?

1. Yes [SKIP TO C7]
2. No

8 Don't know

9 Refused

C3 What is your status in regards to the program? [READ OPTIONS IF NEEDED]

1. Did not receive audit or participate in program
2. Received audit and received rebates for installing equipment through a NYSERDA program, but did not use program financing
3. Received audit, and financed project through program, but did not receive any rebates from a NYSERDA program
4. Received audit, financed project through program, and received rebates from a NYSERDA program
5. Received audit, but did not implement any equipment or use financing
6. Received audit and implemented equipment on my own (with or without utility or other rebates) without NYSERDA assistance
7. Number of locations is incorrect (RECORD CORRECT NUMBER OF LOCATIONS) (SKIP TO C7)

8 Don't Know

9 Refused

(CORRECT FINANCE AND EFP VARIABLES PER SURVEY RESPONSES)

IF C3 = 2, FINANCE = 0 AND EFP = 1

IF C3 = 3, FINANCE = 1 AND EFP = 0

IF C3 = 4, FINANCE = 1 AND EFP = 1

IF C3 = 5, FINANCE = 0 AND EFP = 0

IF C3 = 6, FINANCE = 0 AND EFP = 0

C4 [IF C3=1] Our records show your business participated in this program around **[AUDIT MONTH] [AUDIT YEAR].** Do you recall receiving this audit through the program?

1 Yes [SKIP TO C7]

2 No [SKIP TO C5]

8 Don't know [SKIP TO C5]

9 Refused [SKIP TO C5]

C5 [IF C4 = 2] Is it possible that someone else in your business would be familiar with the **[PROGRAM]**?

1	Yes	
2	No	[THANK AND TERMINATE]
8	DON'T KNOW	[THANK AND TERMINATE]
9	REFUSED	[THANK AND TERMINATE]

C6 May I please speak with that person?

1	Yes	[BEGIN THE SURVEY AGAIN [C2] WITH NEW R]
2	No	[THANK AND TERMINATE]
8	DON'T KNOW	[THANK AND TERMINATE]
9	REFUSED	[THANK AND TERMINATE]

Program Participation

C7 Were you involved in the decision of whether or not to participate in this program?

1 Yes
2 No
8 Don't Know
9 Refused

C8 Who else at your company has been involved in the decision of whether or not to participate in this program? [MULTIPLE RECORD]

1 No one else was involved
2 CEO/President
3 Business owner
4 Facilities engineer
5 Maintenance manager
6 Building manager
7 Energy management staff
8 Purchasing agent
9 Landlord/property manager or administrator
10 Operations manager
11 Other employee [SPECIFY]
98 Don't know
99 Refused

C9 (IF FINANCE = 1 SKIP TO C11) After receiving the audit through NYSERDA's **[PROGRAM],** did you install any of the equipment or improvements they recommended, either on your own, through NYSERDA, through [UTILITY], or some other way?

1 Yes

2 No (SKIP TO INTROA1)

8 Don't Know (SKIP TO INTROA1)

9 Refused (SKIP TO INTROA1)

C10 What did you install?

1 Gave Response

8 Don't know

9 Refused

(RECORD VERBATIM)

C11 Did you receive any rebates or credits from anyone when you installed the equipment or improvements recommended through the program?

1 Yes

2 No (SKIP TO C13)

8 Don't Know (SKIP TO C13)

9 Refused (SKIP TO C13)

C12 Who did you receive it from? (MULTIPLE RECORD)

1. [UTILITY]
2. Other electric or gas utility (SPECIFY)
3. NYSERDA
4. Federal tax credit
5. Local tax credit
6. A bank or credit union (SPECIFY)
7. Other (SPECIFY)

8 Don't Know

9 Refused

(IF C12 = 3, SET EFP = 1)

C13 Why did you decide to install the equipment (IF C11 = 1, SHOW: with rebates from [C12 RESPONSE]) that was recommended to you through the **[PROGRAM]**? (DO NOT READ, SELECT ALL THAT APPLY)

1. Needed equipment regardless
2. Wanted to upgrade old equipment
3. Wanted to be energy efficient
4. Wanted to save money on energy bills

5. Rebates or financial assistance made it affordable
6. Payback period was short
7. Wanted to market my business as energy efficient or "green"
8. Other (SPECIFY)

98 Don't Know

99 Refused

C14 (IF FINANCE = 1 SKIP) Did you obtain a loan or financing when you installed the equipment or improvements?

1 Yes

2 No

8 Don't Know

9 Refused

C14a. (IF C14 = 1) From whom did you obtain a loan or financing? [RECORD VERBATIM]

1 Gave response

8 Don't know

9 Refused

Program Awareness

INTROA1 (SET PTYPE VARIABLE – USE FOR SKIPS THROUGH REMAINDER OF INSTRUMENT)

IF FINANCE = 0 and EFP = 1, PTYPE = 1.

IF FINANCE = 1 and (EFP = 0 or EFP= 1), PTYPE = 2.

IF FINANCE = 0 and EFP = 0 and C9 <> 1, PTYPE = 3.

IF FINANCE = 0 and EFP = 0 and C9 = 1, PTYPE = 4.

A1 How did you hear about NYSERDA's **[PROGRAM]**?
[DO NOT READ; SELECT ALL THAT APPLY]

1. NYSERDA (call center)
2. NYSERDA (mailing)
3. NYSERDA (email newsletter)
4. NYSERDA staff
5. NYSERDA website
6. Contact from auditor [PROBE: How did auditor contact you?]
7. From participation in another NYSERDA program [SPECIFY PROGRAM]
8. Other contractor/vendor
9. Conference/trade show/expo
10. Chamber of Commerce meeting or newsletter
11. Newspaper

12. Friend/business person [Probe: Did this friend/business person also participate in the program?]
13. Other [SPECIFY]

98 Don't Know

99 Refused

A2 Are you aware of any **[UTILITY]** programs for small businesses?

1. Yes [PROBE: Which programs?]
2. No

8 Don't know

9 Refused

A3 [IF A2 = YES] Have you participated in any **[UTILITY]** programs for small businesses?

1 Yes (PROBE: Which ones?)

2 No

8 Don't know

9 Refused

A5 When it comes to energy and energy efficiency, small businesses in New York are often approached by multiple companies, including their electric/natural gas utility company, NYSERDA, or energy services companies (ESCOs).

At any time, was there any confusion within your company in regards to…

1. Yes
2. No

8 Don't know

9 Refused

A5A What services these companies provided?

A5B Whether these companies were affiliated with NYSERDA?

A5C Which company would provide services that best fit your needs?

Motivations for Energy Efficiency

PP1 What is the <u>main</u> reason your company was interested in obtaining an energy audit through the **[PROGRAM]**? [DO NOT READ; SELECT ONLY ONE]

1 Wasn't interested--someone approached us about it

2 Wanted to know how to reduce operating/energy costs

3 The audit was free

4 Wanted to know what we could do to save energy

5 It looked like a good deal

6 I like to take advantage of NYSERDA offers

7 Needed the work done anyway/already planned it

8 Was interested in NYSERDA financing options

9 Wanted to understand high/expensive energy bills

10 Wanted to compare/check savings estimate from contractor

11 Other [SPECIFY]

98 Don't know

99 Refused

PP1a What are other reasons your company was interested in obtaining an energy audit through the **[PROGRAM]**? [SELECT ALL THAT APPLY]

1 Wasn't interested--someone approached us about it

2 Wanted to know how to reduce operating/energy costs

3 The audit was free

4 Wanted to know what we could do to save energy

5 It looked like a good deal

6 I like to take advantage of NYSERDA offers

7 Needed the work done anyway/already planned it

8 Was interested in NYSERDA financing options

9 Wanted to understand high/expensive energy bills

10 Wanted to compare/check savings estimate from contractor

11 Other [SPECIFY]

98 Don't know

99 Refused

PP2 Using a 0 to 10 scale, where 0 is not at all useful and 10 is very useful, how useful did you find the information provided by the energy auditor during the visit?

__ RECORD RESPONSE

1 Gave response

8 Don't Know

9 Refused

PP3 The contractor who audited your site presented your company with a report about the energy savings you could expect by installing the recommended measures. Do you recall seeing this report?

1 Yes

2 No

8 Don't know

9 Refused

PP4a If the free audit through the **[PROGRAM]** had not been available, would you have obtained an audit from another source around the same time?

1 Yes (SKIP TO PP4c)

2 No

8 Don't know (SKIP TO PP6)

9 Refused (SKIP TO PP6)

PP4b [IF PP4a = NO] If the free audit through the **[PROGRAM]** had not been available, would you have obtained an audit from another source within a year of receiving the free audit?

1 Yes

2 No (SKIP TO PP6)

8 Don't know (SKIP TO PP6)

9 Refused (SKIP TO PP6)

PP4c From whom would you have obtained an audit?

1. Same audit contractor

2. A different audit contractor

3. Different NYSERDA program

4. Utility program

5. Other (SPECIFY)

8 Don't know

9 Refused

PP4d Would you have paid the full cost of an audit if the free audit through the **[PROGRAM]** had not been available?

1 Yes

2 No

8 Don't know

9 Refused

PP4e [IF PP4d = NO] What would you have done instead?

1 Not obtained an audit

2 Other [SPECIFY]

8 Don't know

9 Refused

PP6 [IF PTYPE = 3, ELSE SKIP TO PP8] What is the MAIN reason you haven't installed any energy-efficient equipment at this time? [SELECT ONLY ONE]

1 Your experience with the vendor conducting the audit [SPECIFY]

2 The type of equipment recommended

3 The estimated energy savings from the recommended equipment are too small

4 Don’t trust that will see the estimated energy savings from the recommended equipment
5 Potential disruption to your business
6 Do not have capital/funds for it
7 Other priorities for spending
8 The internal approval process for the funding of the contribution
9 Don't know what to do
10 Don't feel savings justify cost
11 Have had problems with energy-efficient equipment in the past
12 Found the audit report hard to understand
13 Need financing or a loan in order to consider it
14 Can’t take on additional debt/loans at this time
15 Other reason [SPECIFY]
98 Don’t know
99 Refused

PP6a Are there any other reasons you haven't installed any energy-efficient equipment at this time? [SELECT ALL THAT APPLY]

1 Your experience with the vendor conducting the audit
2 The type of equipment recommended
3 The estimated energy savings from the recommended equipment are too small
4 Don’t trust that will see the estimated energy savings from the recommended equipment
5 Potential disruption to your business
6 Do not have capital/funds for it
7 Other priorities for spending
8 The internal approval process for the funding of the cost
9 Don't know what to do
10 Don't feel savings justify cost
11 Have had problems with energy-efficient equipment in the past
12 Found the audit report hard to understand
13 Need financing or a loan in order to consider it
14 Can’t take on additional debt/loans at this time
15 Other reason [SPECIFY]
98 Don’t know
99 Refused

PP7 Do you have any plans to install any of the recommended energy-efficient equipment in the next year?

1. Yes (PROBE: What do you plan to install?)
2. No

8 Don't know

9 Refused

PP8 Businesses participate in energy efficiency programs for different reasons. Thinking about when you decided to participate in the **[PROGRAM]**, please indicate if each of the following reasons were NOT AT ALL IMPORTANT, SOMEWHAT IMPORTANT, or VERY IMPORTANT in your decision to participate in the program. Please also tell me if the reason is not applicable to you.

(ROTATE LIST)

1 Not at all important

2 Somewhat important

3 Very important

4 Not applicable

8 Don't know

9 Refused

a. The information I received through the audit

b. The potential for my business to save money on energy bills

c. Finding out about rebate(s) available for energy-efficient improvements

d. NYSERDA's recommendation that I participate in the program

e. Someone I know having a positive experience with the program

f. A contractor's recommendation that I participate in the program

g. Financial assistance from NYSERDA, such as low-interest loans or on-bill financing

h. Being able to market my business as energy efficient or "green"

PP9 Using a scale of 0 to 10 where 0 equals "strongly disagree" and 10 equals "strongly agree", how much do you disagree or agree with the following statements? [ROTATE LIST] 98 = Don't know 99 = Refused

____a. My business's contribution to energy efficiency conservation does <u>not</u> make a difference

____b. The comfort of my building or facility is more important than conserving energy

____c. Using energy-efficient products and practices requires too much effort

____d. I care that my energy consumption today will have an impact on future generations

____e. Adding energy-efficient equipment to my facility helps my business's operating budget

PP10 Please tell me whether you feel the following statements are true or false.

Replacing an old refrigerator an office breakroom with a new Energy Star refrigerator can save more than $100 a year.

1 True

2 False

8 Don't know

9 Refused

PP12 Even when turned off, office equipment such as computers and printers can have a 'phantom' power load of up to 40 watts.

1 True

2 False

8 Don't know

9 Refused

Program Incentives and Financing

F1 When your business is considering purchasing or investing in improvements or equipment for your facility, which of the following options would your business be MOST likely to consider? (READ CATEGORIES)

1. Purchase the equipment or improvement "in cash," or without a loan or financing,
2. Use cash for part of the purchase and take out a loan for the remainder, or
3. Take out a loan for the entire purchase

8 Don't Know

9 Refused

F1a Why do you say that?

1 Gave response

8 Don't know

9 Refused

(RECORD RESPONSE)

F2 Does your business have any policies in place when it comes to purchasing building improvements or equipment? (DO NOT READ, RECORD ALL THAT APPLY)

1. Purchase must be approved by management or board
2. Equipment must have certain payback period
3. Equipment must be accounted for in yearly budget/plan
4. Equipment must be purchased "in cash", or without a loan or financing
5. Other (Specify)

8 Don't Know

9 Refused

F2a Can you explain these policies in more detail? (PROBE FOR HOW AND WHY THEY HAVE THESE POLICIES)

1 Gave response

8 Don't know

9 Refused

(RECORD RESPONSE)

F3 (IF PTYPE =2 SKIP TO F7) NYSERDA's Green Jobs Green New York Energy Efficiency Financing Program offers low-interest project financing for eligible businesses who install energy-efficient equipment, either through partnering with lenders to offer loans or through utility on-bill financing.

Before today, were you aware that the program offered financing?

1. Yes
2. No

8 Don't know

9 Refused

F3A (IF F3 = 1) Who informed you that the program offered financing?

1. NYSERDA program staff
2. Energy auditor
3. [EXPEDITOR]
4. Program materials I received
5. Other contractor/vendor
6. Friend/business person
7. An advertisement (PROBE: What ad?)
8. Other (SPECIFY)

8 Don't know

9 Refused

F3B (IF F3 = 1) Did you feel that [IF F3A = 1-7, SHOW: SOURCE FROM F3A. IF F3a = 8 or 9, D, R, SHOW: "the way you heard of the program"] gave you enough information to access program-offered financing <u>if you had wanted to</u>?

1. Yes
2. No

8 Don't know

9 Refused

F3C (IF F3 = 1) What additional information, if any, could have been provided to you to help you be more informed on the financing portion of the program?

1 Gave response

8 Don't know

9 Refused

(RECORD RESPONSE)

F4 (IF F3= 1) Did you apply for financing or a loan through NYSERDA's **[PROGRAM]**?

1. Yes
2. No

8 Don't know

9 Refused

F5 (IF F4 = 2 AND (PTYPE = 1 OR PTYPE = 4)) Previously you said that you installed some or all of the equipment recommended to you during the program audit. What are the reasons you didn't apply for financing through the Green Jobs Green New York Energy Efficiency Financing Program when you purchased that equipment? (DO NOT READ, SELECT ALL THAT APPLY)

1. Didn't have time; needed equipment immediately
2. Did not get management/board approval for loan
3. Company policy/company rules don't allow it
4. Equipment cost wasn't high enough to justify financing
5. Interest rates were too high
6. Received financing/loan elsewhere (PROBE: Where?)
7. Experience with program-participating financial institution
8. Did not know about financing until too late
9. Did not think we would qualify
10. Received incentives to offset the cost (NYSERDA or utility)
11. Tried but did not qualify
12. Other (SPECIFY)

98 Don't know

99 Refused

F6 (IF PTYPE = 3 AND PP7 = 1) When you install your planned equipment, would you be interested in Green Jobs Green New York Energy Efficiency Financing Program financing?

1. Yes
2. No

8 Don't know

9 Refused

F6a (IF F6 = 2 OR D) What, if anything, would make you more likely to consider this financing component?

1 Gave response

8 Don't know

9 Refused

(RECORD RESPONSE)

F7 (IF PTYPE = 2) Why did you decide to participate in the financing offered through the Green Jobs Green New York Energy Efficiency Financing Program?

1 Gave response

8 Don't know

9 Refused

(RECORD RESPONSE)

F7b (IF PTYPE = 2) If low cost financing had not been available through the Green Jobs Green New York Energy Efficiency Financing Program**,** would you have sought financing from another source?

1 Yes

2 No

8 Don't know

9 Refused

F7c [IF F7b = YES] From whom would you have sought financing?

1 Same lending institution

2 A different lending institution

3 Other (SPECIFY)

8 Don't know

9 Refused

F7d (IF PTYPE = 2) If you had not obtained low cost financing through the Green Jobs Green New York Energy Efficiency Financing Program, which of the following actions do you think you would have taken? Would you have:

1. Installed equipment recommended to you during the program audit around the same time
2. Postponed installation of equipment recommended to you during the program audit by more than one year
3. Not installed any equipment recommended to you during the program audit
4. Installed less equipment recommended to you during the program audit
5. Installed the same equipment recommended to you during the program audit
6. Done something else (SPECIFY)

8 Don't know

9 Refused

F8 I'm going to ask you to tell me how difficult or easy certain aspects of the program were. Please tell me whether these aspects were very difficult, somewhat difficult, somewhat easy, or very easy. If something was not applicable, please let me know.

1. Very difficult
2. Somewhat difficult
3. Somewhat easy
4. Very easy
5. Not applicable
8 Don't know
9 Refused

a. Finding information about the program

b. Understanding the program requirements

c. Scheduling an audit

d. (IF PTYPE <> 3) Finding information about equipment rebates

e. (IF PTYPE <> 3) Filling out applications for incentives

f. (IF PTYPE <> 3) Finding a contractor to do the work or install the equipment

g. (IF F3 = 1 OR IF PTYPE = 2) Finding information about Green Jobs Green New York Energy Efficiency Financing Program financing/loans

h. (IF F4 = 1 OR IF PTYPE = 2) Applying for Green Jobs Green New York Energy Efficiency Financing Program financing/loan

i. (IF PTYPE = 2) Interacting with Green Jobs Green New York Energy Efficiency Financing Program lender staff regarding financing/loan

Equipment Installation

E1 Businesses consider many different factors when deciding which equipment to purchase. Please indicate if each of the following reasons were NOT AT ALL IMPORTANT, SOMEWHAT IMPORTANT, or VERY IMPORTANT in your firm's decision of which equipment recommended to you during the program audit to install. [SPECIFY FOR EACH ITEM] (ROTATE LIST)

1. Not at all important
2. Somewhat important
3. Very important
4. Not Applicable
8 Don't know
9 Refused

a. Compatibility with existing equipment

b. Initial purchase cost

c. Operating cost

d. Length of payback period, or ROI

e. Recommendation of contractor or supplier

f. Efficiency level of equipment

g. Incentives from NYSERDA

h. Rebate from utility or another source

i. Recommendations of others that had experience with equipment

j. Compatibility with business design

k. Energy savings of equipment

l. Free audit and Energy Reduction Plan

m. [IF PTYPE = 2] Low cost financing

n. [IF EXPEDITOR<> 0] Expeditor services including direct implementation support and assistance accessing incentives and/or GJGNY financing opportunities

o. Energy cost savings

E2. [IF E1m = 2 OR 3] If you had not had Expeditor assistance in implementing the audit measures through the **[PROGRAM]**, which of the following actions do you think you would have taken? [Select all that apply.]

Would you have:

1. Installed equipment recommended to you during the program audit around the same time
2. Postponed installation of equipment recommended to you during the program audit by more than one year
3. Not installed any equipment recommended to you during the program audit
4. Installed less equipment recommended to you during the program audit
5. Installed the same equipment recommended to you during the program audit in approximately the same timeframe
6. Done something else (SPECIFY)

8 Don’t know

9 Refused

Operating Hours and Energy Use

We’re almost done, I just have a few questions about the hours that your business is open and your business’s general characteristics.

H1 Is your business open 24 hours a day, seven days a week?

1 Yes (SKIP TO H4)

2 No

8 Don’t know

9 Refused

H2. (IF H1 = 2, 8, or 9) Is your business open the same hours Monday through Friday?

1. Yes
2. No

8 Don't know

9 Refused

H2a (IF H2 = 1) During what hours of the day is your business open for operations Monday through Friday? (RECORD IN MILITARY TIME)

OPEN TIME:_____ CLOSE TIME: _____(SKIP TO H3F)

H3 (IF H2 = 2, 8, or 9) During what days of the week and hours of the day is your business open for operations? (RECORD DAYS OPEN AND OPENING AND CLOSING TIME IN MILITARY TIME)

a	Monday?	OPEN TIME:_____	CLOSE TIME: _____	99 CLOSED
b	Tuesday?	OPEN TIME:_____	CLOSE TIME: _____	99 CLOSED
c	Wednesday?	OPEN TIME:_____	CLOSE TIME: _____	99 CLOSED
d	Thursday?	OPEN TIME:_____	CLOSE TIME: _____	99 CLOSED
e	Friday?	OPEN TIME:_____	CLOSE TIME: _____	99 CLOSED

And what hours is your business open on:

f	Saturday?	OPEN TIME:_____	CLOSE TIME: _____	99 CLOSED
g	Sunday?	OPEN TIME:_____	CLOSE TIME: _____	99 CLOSED

H4 On a scale of 0 to 10, where 0 is "very inexpensive" and 10 is "very expensive," how costly would you say your business's energy bill is per month?

__ RECORD RESPONSE

88 Don't Know

99 Refused

H4A Approximately what percent of your overall business costs go to energy bills? (IF NEEDED: This includes the bills you receive for your use of electricity, gas, and/or other fuel type used in your day-to-day business operations)

__% RECORD RESPONSE

88 Don't Know

99 Refused

H5 Overall, which of the following statements best describes your business's energy efficiency efforts at this location? [READ LIST]

1 We haven't done <u>anything</u> to save energy at this location

2 We haven't done much to save energy

3 We have made some energy efficiency improvements

4 We have done everything or almost everything that we can

8 Don’t Know

9 Refused

H6 Do you think your business could further reduce energy costs by installing <u>more</u> energy efficient equipment?

1 Yes

2 No

8 Don't Know

9 Refused

Firmographics

I just have a few more questions about your facility at **[ADDRESS].**

B1. What is the majority of the space at this location used for? [DO NOT READ LIST]

1 Office/professional

2 Data center/computer server farm

3 Warehouse or distribution center.

4 Food sales or service

5 Retail

6 Education

7 Religious worship

8 Health care

9 Service

10 Lodging

11 Public order and safety

12 Industrial/Manufacturing (SPECIFY)

13 Agricultural (SPECIFY)

14 Vacant (SPECIFY)

15 Laboratory

16 Other (SPECIFY IN DETAIL)

98 DON’T KNOW

99 REFUSED

B2 Is this business a non-profit organization?

1. Yes

2. No

8 Don’t Know

9 Refused

B3 Which of the following options best describes your business/organization's ownership category? Is it . . .? [READ LIST]

1 One of a chain of establishments

2 Franchise

3 Single establishment business/organization

4 Branch office

5 Headquarters of business/organization with branch offices

6 Educational facility

7 Other [SPECIFY]

8 Don’t Know

9 Refused

B4 How many more years does your business plan to be at this location/manage this space? Range = 0 to 76, 76 = 76 or more

___ Years

77 Indefinite

88 Don't know

99 Refused

B5 Approximately how many full-time, part-time, and seasonal employees, including yourself, work at this location? Range = 0 to 887, where 887 = 887 or more

___ Full-time employees [30+ hours per week]

___ Part-time employees

___ Seasonal employees

888 Don’t know

999 Refused

B6 Does your business own or lease all or some of the space you occupy/manage at this location?

1 Own all

2 Lease all

3 Own some and lease some

4 Manage property

5 Other [SPECIFY]

8 Don’t Know

9 Refused

B6A (IF B6 = 2 or 3) How long is your current lease term at [**ADDRESS]?**

__ RECORD NUMBER OF YEARS (Programming note – allow decimal/partial year)

88 Don’t Know

99 Refused

B6B (IF B6A = 88) Is your current lease term…

1. Less than 1 year
2. 1 to less than 3 years
3. 3 to less than 5 years
4. 5 to less than 7 years
5. 7 to less than 10 years
6. More than 10 years

8 Don't Know

9 Refused

B6C Approximately how much time do you have remaining in your current lease term?

__ RECORD NUMBER OF YEARS (Programming note – allow decimal/partial year)

88 Don't Know

99 Refused

B6D Do you plan to renew your lease at this location when your current lease expires?

1. Yes
2. No

8 Don't Know

9 Refused

B7 When it comes to your business's day-to-day operation, would you say your business tends to communicate MOST often through:

1. The internet, such as through email
2. Telephone
3. Paper, such as mail or fax
4. Or in some other way (SPECIFY)

8 Don't know

9 Refused

B9 Finally, in terms of revenues, over the last two years, has your business increased, decreased, or remained about the same?

1 Increased

2 Decreased

3 Stayed the same

8 Don't Know

9 Refused

B10 What is your title?

1 CEO/President
2 Business owner
3 General manager
4 Facilities engineer
5 Maintenance manager
6 Office manager
7 Administrator
8 Energy management staff
9 Purchasing agent/buyer
10 Landlord/property manager
11 Operations manager
12 Other [SPECIFY]
98 Don’t Know
99 Refused

Thank you, those are all the questions I have.