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Edward J. Bloustein School
of Planning and Public Policy

NEW JERSEY CLEAN ENERGY PROGRAM

LOCAL GOVERNMENT ENERGY AUDIT (LGEA) PROGRAM

PROCESS EVALUATION

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Contents

ABSTRACT

The Built Environment and Green Building Group of the Center for Urban Policy Research (CUPR), formerly, Rutgers Center for Green Building (RCGB), conducted a process evaluation of the Local Government Energy Audit (LGEA) program, which is currently managed by the Program Administrator, TRC, and funded through the New Jersey Clean Energy Program (NJCEP.) The LGEA program implements ASHRAE Level 2 audits at no charge to the participant in eligible facilities owned by municipalities, school districts, 501(c)(3) non-profits, and other local and state government entities to provide participants with information on how their facilities use energy, identify energy conservation measures (ECMs) that can reduce energy use, and assist participants in implementing these ECMs, by guiding them to appropriate NJCEP programs and associated financial incentives. The NJCEP and utilities do not claim energy savings for the LGEA program.

The sample frame for this evaluation consists of all 51 audits completed within the LGEA program between July 1, 2020, and June 30, 2022, approximately 40% (21) of which were completed prior to the partial transfer of LGEA to utilities and approximately 60% (30) of which were completed post transfer.

Overall, LGEA program staff have successfully created awareness of both the program itself and the potential energy savings opportunities for participants. A segment of customers, particularly schools with many facilities and entities without energy managers or third-party energy bill-paying services, find the application process cumbersome, resulting in some lengthy application times. Throughout the audit process, interactions with TRC are generally positive across all types of participating entities.

Although follow-through to implementation of measures post-audit is relatively good, the performance of the program in this aspect has declined since implementation responsibility transferred to the utilities along with the portfolio of energy efficiency programs for existing buildings.

Data-driven recommendations from this evaluation center on establishing program goals and metrics, reducing the time and difficulty of the audit process, better coordinating with utilities, and expanding the promotion of the program.

Overall Program Recommendations:

1. **Establish program goals that can be tracked as metrics of program progress and success.**
2. **Continue and strengthen the promotion of the program, including emphasis on cost savings and availability of utility and State EE program incentives.**
3. **Reduce the time and difficulty of the process, from application through completed report.**
4. **Increase attention to the post-audit linkage of the participant to appropriate programs and paths to implementing ECMs, with special attention to ensure that local procurement needs are recognized.**

Evaluability Recommendations:

1. **Develop a program theory and logic model.**
2. **Define specific program goals and links to "effects" tracking.**
3. **Work with utilities to track the installation of ECMs.**
4. **Ensure that building baseline conditions and project savings are being adequately tracked in the tracking database.**
5. **Develop a list of eligible non-profit participants and of "other government" participants.**

EXECUTIVE SUMMARY

Background

The Built Environment and Green Building Group of Rutgers Center for Urban Policy Research (CUPR), formerly Rutgers Center for Green Building (RCGB,) conducted a process evaluation of the Local Government Energy Audit (LGEA) program, which is currently managed by consultant TRC and funded through the New Jersey Clean Energy Program (NJCEP) since 2009. The LGEA program implements ASHRAE Level 2 audits at no charge to participants in eligible facilities owned by municipalities, school districts, 501(c)(3) non-profits, and other local and state government entities. The LGEA audit serves as an independent energy audit in accordance with the New Jersey Department of Consumer Affairs (DCA) Local Finance Board Energy Savings Improvement Program (ESIP) Guidelines. Public buildings (municipal and school) account for about 17% of state energy usage from non-residential sources in New Jersey (source: CBECS, 2018 data for Mid-Atlantic Region (NJ, NY and PA only); Adjusted for NJ using 2020 ACS Census). Reductions in energy usage from this sector can help to reduce overall state energy use and, because bill savings are realized by taxpayers for municipal and school customers, these reductions can help to stabilize or reduce local and school budgets and resultant tax burden for residents.

 According to LGEA program staff, program objectives are to:

- Provide participants with information on how their facilities use energy.
- Identify energy conservation measures (ECMs) that can reduce energy use.
- Assist participants in implementing these ECMs, by guiding them to appropriate energy efficiency equipment incentive programs.

Through June 30, 2021, TRC oversaw both the audit component of the program and the corresponding installation of energy conservation measures (ECMs) through the NJCEP. In 2021, with the transfer of existing building programs to the utilities under the NJ Clean Energy Act, these responsibilities were split such that TRC continues to manage the audit component while the utilities are responsible for managing the installation of ECMs through their energy efficiency program offerings. Units of local government (municipalities and schools) may also choose to hire their own contractors, or for those with higher energy usage, move forward into an ESIP contract with an Energy Service Company (ESCO.)

Some of the key focus areas of this evaluation included:

1. **Clarity and completeness of program information,** including the availability of metrics and potential applicants' ease of understanding program attributes and benefits;
2. **Participation of eligible entities**, including proportion of eligible entities that are applying and adequacy of program promotion;
3. **Program barriers and delays,** including levels of satisfaction, reducing the time from application to audit completion, and tracking milestones within the process; and
4. **Follow-through from audit to implementation of measures,** including effectiveness of working with the utility partners to follow up after audits and the ability to track installation metrics, etc.

This process evaluation is a mixed methods review of the program's delivery, performance, and documentation, with a focus on actionable recommendations for program improvements, and information on program barriers and remedies. Objectives of this evaluation are:

- To examine how successfully the program was transitioned from NJCEP to the utilities and to offer recommendations on improvements based on participant feedback.
- To provide recommendations to program staff to improve program implementation, program participation, and completion of the program (installing ECMs) from various participant perspectives.

- To provide recommendations to improve program satisfaction among the various participants, including the entities receiving audits, ESCOs/contractors, and administrators.
- To conduct an evaluability assessment to assure that the data collection and data access can fully support the needed process and impact evaluations going forward; and
- To benchmark the LGEA program with other similar programs and to provide recommendations on best practices to program staff.

The sample frame for this evaluation comprises all 51 audits completed within the LGEA program between <u>July 1, 2020 and June 30, 2022,</u> approximately 40% (21) of which were completed before the partial transfer of LGEA to utilities and approximately 60% (30) of which were completed post transfer.

Methods

The methodology consisted of the following components:

<u>Materials Review:</u>

The team collected, reviewed, and assessed documents, including forms, brochures, and reports, for their clarity and completeness.   These included LGEA promotional materials on the NJCEP website, application materials, program/process data from TRC and Sustainable Jersey (SJ)[1], completed audit reports and presentations and TRC compliance filings.

<u>Primary Data Collection – Surveys of Participants, Partial Participants, Program Administrators, Utilities, and Non-participants:</u>

The team conducted virtual interviews with representatives from entities participating in the program during our sample timeframe (25), partial participants who had started the LGEA application process but had dropped out before completion of the audit (3), program administrators (3), utility representatives (4), and ESCO personnel (4). An online survey, distributed through the New Jersey League of Municipalities, The New Jersey Association of School Business Officials, and a private school distribution list, was conducted to gather information from eligible entities who had not participated in LGEA to assess levels of awareness and perceived barriers and preferences for an energy audit program. We also held conversations with several other individuals for specific information or follow-up as needed, including Sustainable Jersey, the New Jersey School Business Administrators Association, and selected subject matter experts. Interview guides and survey protocols are found in the Appendices.

<u>Comparable Programs Review</u>:

The team researched programs that have achieved success in energy audits of public organizations from other states, based on advice from experts. The purpose was to determine factors that might influence success and gather evidence about better ways to achieve the energy efficiency goals associated with LGEA.   While several audit programs were found, CUPR found none that were focused on municipalities and schools and also only conducted audits. Of the comparable programs located, very few had undergone process or impact evaluations. Overall, it was found that none of the comparable programs provided strong goal statements and few claimed program savings. The programs reviewed had similar barriers to LGEA including limited capital, lack of staff time, limited knowledge and funding uncertainties for the participating entities.

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[1] SJ is a network that supports municipal progress toward sustainability by identifying best practices, facilitating peer-to-peer learning, developing metrics to judge performance, and providing direct technical support and training.

Key Results and Program Recommendations

Overall:

LGEA program staff have been successful at creating awareness of the program among eligible schools and municipalities and completed audits clearly present the potential energy savings opportunities for participants. A segment of customers, particularly schools with many facilities and entities without energy officers or energy bill-paying services, find the application process to be cumbersome, resulting in some lengthy application times. Eligible participants note that a lack of staff capacity to apply and the lack of management support are reasons that they do not apply**.** Throughout the audit process, interactions with program administrator TRC are mostly good across all participants. Although follow-through to implementation of measures post-audit is relatively good, it has declined since responsibility transferred to the utilities along with the portfolio of energy efficiency programs for existing buildings.

Recommendations center on establishing program goals and metrics, expanding promotion of the program, reducing time and difficulty of the audit process, and better coordinating with utilities for improved follow-through.

Key Results and Recommendations:

Recommendation #1: Establish program goals that can be tracked as metrics of program success. Clear program goals related to applicants, process, and cost savings/energy efficiency should be established and tracked by both the program administrator and the utilities to increase the evaluability of the program and demonstrate the value of the program. Possible metrics to track (or continue tracking) include representative participation, program timeline, ECM installs and energy savings, audited potential savings, and pipeline to Energy Savings Improvement Program participation.

In addition, the program administrators may administer periodic post-program surveys to participants and publish metrics online, similar to other programs.

Recommendation #2: Continue and strengthen the promotion of LGEA, including an emphasis on cost savings and the availability of incentives. Continuing successful promotion and considering targeted ways to market the program can spur more entities to participate, in particular in underrepresented sectors, such as non-profits. Nonprofit outreach may be increased using state/regional membership organizations in faith-based, recreation, environmental and non-profit housing sectors.

The Program may highlight and leverage existing related and supportive programs like Sustainable Jersey (SJ) that educate about and incentivize LGEA participation.

LGEA staff could expand outreach by working with professional organization relationships (e.g. League of Municipalities, NJ School Business Administrators) to promote the program through membership outreach.

Recommendation #3: Reduce the time and difficulty of the process, from application through the completed report. Simplifying the data collection process, particularly the collection of utility bills, and considering other types of support, such as shared energy managers, Level 1 audits, or other assistance, will help more organizations access LGEA, maintain management support through the process, and plan and budget for implementation of measures.

Program administrators may review the application workbook to determine if all the requested data is necessary during the application phase, establish a clear point of contact with the utilities to provide bill information to reduce the burden on the applicant, highlight available hands-on assistance (e.g. through Sustainable Jersey), and consider a shared energy manager or circuit rider program to work with smaller, less well-resourced customers.

Recommendation #4: Increased attention to the post-audit linkage of the participant to appropriate programs and paths to implementing ECMs, with special attention to ensure that local procurement needs are recognized. Coordination between the program administrator and the utilities after the audit will improve the customer experience

and increase follow-through. Matching audit content to the post-audit intentions of participants (whether utilizing ESIP or utility programs and approved vendors) will help to lay a better roadmap for follow-through.[2] Audit reports could also be more prescriptive in approaches to how local governments can work to implement green energy measures in compliance with procurement restrictions.

Program administrators may include clear descriptions of incentives and payback in the audit report, add periodic PA/utility coordination at 3- or 6-month intervals after report delivery, provide a post-audit actions list, with phasing options and case studies to help participants better understand options, and a Shared Energy Manager could assist with post-audit planning and implementation steps, especially for those participants not doing ESIP.

Evaluability: Key Findings and Recommendations

- Evaluability will need to relate to updated PTLM & evaluable goals (see Recommendation #1).

- Metrics and measures associated with updated goals then developed/refined (R#1), tracked, and reported on a periodic basis (R#4).

- Evaluate impacts of revisions from program recommendations.

Recommendations:

1. **Develop a program theory and logic model.** A first step to improving evaluability of the LGEA program is to develop a program logic model, which helps facilitate effective program planning, implementation, and evaluation in the program team. A logic model visually represents the available resources, program activities, and intended outcomes and impacts.

2. **Define specific program goals and links to "effect" tracking.** As mentioned as part of Program Recommendation #1, the Program Administrator for LGEA should establish specific program goals that can be tracked and subsequently used to conduct program impact evaluations in the future. Energy savings associated with LGEA are not currently claimed as part of the overall NJCEP savings, but are nonetheless important to track in order to properly evaluate the program.

3. **Work with utilities to track the installation of ECMs.** Also part of Program Recommendation #1, the program administrators should work in partnership with the relevant utilities to track what audit recommendations are followed by the participants. This will allow further tracking of program accomplishments and contribute data necessary for future impact evaluations.

4. **Ensure that building baseline conditions and project savings are being adequately tracked in the tracking database.** Ensuring that the baseline condition of audited buildings and any resulting savings (from Recommendation #3) are being tracked in the relevant tracking database will further increase the evaluability of the LGEA program and allow future process and impact evaluations to have all the needed data in one place.

5. **Develop a list of eligible non-profit participants, and of "other government" participants.** As part of Program Recommendation #4, and to expand the program's reach to potential participants, the program administrators should work to develop a potential list of non-profit sector organizations. It is clear that the main non-profit participants tend to be religiously affiliated, so the program administrators have a natural outreach partner in groups like GreenFaith and other faith-based environmental organizations. Additionally, a list of eligible county, State and other governmental organizations would be useful for program outreach.

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[2] ESCOs related for many participants, the only reason to participate in the LGEA program is as a prerequisite for an ESIP that is free of charge. However, some also reported that if entities pursue independent preliminary audits, outside the LGEA, it can be accomplished faster and costs ultimately reimbursed as part of the ESIP process.

INTRODUCTION

LGEA Program Description & Objectives

The LGEA program implements ASHRAE Level 2 audits at no charge to participants in eligible facilities owned by municipalities, school districts, 501(c)(3) non-profits, and other local and state government entities. Additionally, the LGEA audit serves as an independent energy audit in accordance with New Jersey Department of Consumer Affairs (DCA) Local Finance Board Energy Savings Investment Program (ESIP) Guidelines. To be eligible for an audit, buildings' annual average peak demand must be a minimum of 200kw, and fourteen (14) months of utility bills (inclusive of all accounts in the buildings to be audited.) must be presented.

LGEA program objectives are to:

- Provide participants with information on how their facilities use energy;
- Identify energy conservation measures (ECMs) that can reduce energy use; and
- Assist participants in implementing these ECMs, by guiding them to appropriate NJCEP equipment incentive programs.

Through June 30, 2021, TRC oversaw both the audit component of the program and the corresponding installation of ECMs through the NJCEP. In July of 2021, with the transfer of existing building programs to the utilities as a result of the NJ Clean Energy Act, these responsibilities were split so that TRC (as the program administrator) continues to manage the audit component while the utilities are responsible for managing the Energy Efficiency programs that provide incentives for the installation of ECMs.

Audit reports are intended to help customers understand how they use energy; understand building upgrade opportunities; and, to motivate owners to look at implementing all ECMs either comprehensively or in a logically phased manner instead of one measure at a time, and to use benchmarking to see how their buildings compare to one another. Audits also include project paybacks as part of the report.

Public buildings (municipal and school) account for about 17% of state energy usage from non-residential sources in New Jersey (source: CBECS, 2018). Reductions in energy usage from this sector can help to reduce overall state energy use and, because bill savings are realized by taxpayers for municipal and school customers, these reductions can help to stabilize or reduce local and school budgets and resultant tax burden for residents. The information gathered during the LGEA audit also aligns well with municipal interests in decarbonization of their building stock (many are developing community energy and emissions reductions plans). Moreover, these audits -with just a few adjustments - could serve the purpose of helping municipalities and school districts comply with any future Building Performance Standard requirement in the state or local level.

Program Process Overview

The role of the LGEA staff begins with marketing, proceeds through customer contact (enrollment to audit delivery), and includes follow-up and reporting functions. The role of the Outreach Team is in pre-and post-audit activities including marketing the program, participating in final audit report meetings, and conducting follow-up on next steps.

Marketing

There are a number of ways that potential LGEA customers might become aware of the program through marketing and program channels. Monthly newsletters go out to trade allies with information on LGEA as well as program information shared at monthly commercial and industrial (C&I) program stakeholder and trade ally calls. The Outreach Team also conducts webinars and lunch and learns. Other marketing includes outreach at conferences (League of Municipalities, School Business Administrators), Sustainable Jersey, and flyers, brochures, and email blasts from the Outreach Team.

Audit Process

The Program Manager (currently TRC) oversees the audit process pipeline, from client registration through assigning projects to the auditors to final report delivery. (See Figure 1.) Application steps for the customer involve an **initial registration** on the website, followed by **data-gathering** that includes an Excel workbook with detailed facility data, and the collection of 14 months of energy bills from each building. The average turnaround time from when the **online application** is received to application approval to be around three months. Once an application has been approved, there is an **initial call** to lay out expectations, followed by a **facility interview** that includes a discussion of every system in the buildings and any operational concerns.

The next step is the **on-site audit**, or facility inspection. The auditor assesses and documents every mechanical system and all energy-consuming equipment. The program aims to complete audit reports in about three months, but that timing is highly variable due to building complexity and additional questions that arise as the data is reviewed and processed. After the audit report is completed, there is a final report meeting, including representatives from the facility, the auditor, LGEA program manager, appropriate utility contacts, and BPU staff.

Figure 1. LGEA Process Flow

Source: Microsoft PowerPoint - NJ Planning Commission - 20210203 Meeting.pptx

After the final meeting/presentation, Outreach Team staff follow up with an email to all participants, connecting the customer to the appropriate utility contact for program information and providing follow-up communication and assistance, as necessary. The Outreach team has regular calls with utilities, specifically PSE&G, JCPL, and ACE, to coordinate ongoing projects and to make sure everyone is aware of the project status.

Participants have several options if they want to install the recommended ECMs post-audit. Any eligible facilities may work with their utility companies (electric and/or natural gas) to use existing incentive and financing options. Government facilities over 50,000 square feet may also use the ESIP program, which is a form of energy performance contracting. In this case, the LGEA audit is the first step in a longer contracting process. Finally, eligible participants may take part in the State Facilities Initiative, which is another funding source for state-owned buildings. Participants who use the SFI may also participate in ESIP. The various financing options are shown in Figure 2 below.

Figure 2. LGEA Post-Audit Options

LGEA Post-Audit Options
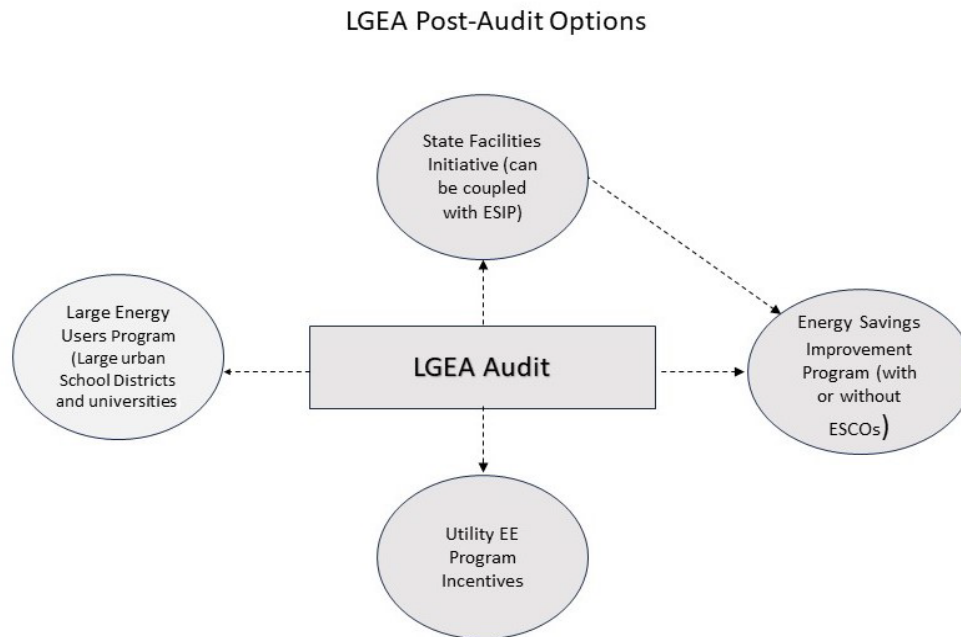
Role of Direct Install Program

The LGEA plays a pivotal role in encouraging local government units to invest in energy conservation measures. It allows them to understand what they need to do and the potential savings. Once potential savings are understood, that leads local government units to the state's finance and cost savings incentive programs. Specifically, they include the Energy Savings Improvement Program (ESIP) and the Direct Install (DI) program. Both these programs are available to local governments.

Unlike non-governmental organizations, New Jersey local governments and state agencies have a comprehensive set of laws and enabling regulations they must follow to procure goods and services. There are very particular provisions that affect the construction, improvement, and maintenance of public buildings and property (public work).

There are two primary sets of laws and rules that guide public work, and thus, the installation of most energy conservation measures. The first is a requirement for competition between contractors and service providers that is open and transparent. This is generically known as "public bidding." In the case of local governments, this requires, among other actions, the preparation of construction plans and specifications that are publicly advertised and the contract awarded to the lowest responsible bidder, i.e., price.

The second is compliance with requirements administrated by the Wage and Hour Division of the Department of Labor and Workforce Development. There are two primary (in addition to related subsidiary) requirements:

1. That all construction and maintenance workers on public work projects are paid the "prevailing wage" of workers doing specific trade work in the county where the work takes place. In practice, prevailing wages are wages negotiated by the respective trade union for each craft in every county.
2. That all contractors and sub-contractors performing public work have a "Public Works Contractor Registration" (PWCR) certification approved by the Department. To obtain the PWCR a contractor must meet and maintain compliance with a set of statutory requirements. These include participation of their work force in apprenticeship programs approved by the US Department of Labor.

The original DI program (c.2010-2020) used a process where utilities had "pre-qualified" vendors by selecting them by price for specific ECM's. Under an approval issued in 2010 by DCA's Division of Local Government Services, local

governments were permitted to select ECM contractors without having to go through the rigor of its own public bidding process. Thus, entities that conducted an LGEA could go directly to the installation of improvements and achieve energy reduction and cost savings.

The 2021 Clean Energy Act changed that process to one where utilities selected vendors who would then make proposals to local government units based on the ECMs recommended in the LGEA. The utilities would provide price reductions (or rebates) on equipment-based ECMs to contractors who would, theoretically, pass along the savings to local governments. This process does not involve competitive pricing, nor does it require that prevailing wages be paid.

To properly participate, local governments would have to take the recommended ECM's, have their engineer prepare formal plans and specifications and then go out for a public bid. In practice, since the adoption of the new program, few local government units have followed through given the time and expense of the formal bid process.

Program History: Participating Entities

As of early 2024, a total of 864 audits have been completed under the LGEA program since its inception in 2009. Several entities have done more than one audit in the 15-year span, resulting in 739 unique participating entities. (See Table 1 below). More than half of New Jersey public schools and about a third of all municipalities and all colleges in the state have done at least one audit. It is worth noting that the median size (population for municipalities) of the LGEA participating entities was larger (16,173) than the median population of all municipalities in the state (8,307).

Table 1. LGEA Participating Entities, 2009 – 2023

Entity Type	Number[1]	% of State
Municipalities	191	34%
Public Schools[2]	360	52%
Nonpublic Schools	10	No valid total
Colleges/Universities	25	38%
Other Government	103	No valid total
Non-profits	50	No valid total
TOTAL	**739**	

[1]Number = All unique entities (i.e. counted only once if the entity did LGEA at two or more times)
[2]Public Schools are as defined by NJ DOE, including public districts, special districts, technical high schools, charter schools

The 200kW peak demand threshold was originally instituted in the LGEA program because the Direct Install program served buildings under 200kW. There are four main reasons that waivers can be granted to participants: (1) ESIP is an anticipated form of funding, (2) Master or campus metering arrangement on-site, where demand of any single building is unknown, (3) Unable to commit to other energy efficiency programs due to facility type, measure type (e.g. insulation, windows, etc.), financial constraints, limitations by board or contracting authority, desire to understand energy profile of all buildings prior to prioritizing resources, etc., and (4) other reasons as approved by TRC and/or BPU. Waivers to the 200kW minimum average peak demand requirement were granted to a majority of participants in our sample. As many of these smaller schools and municipalities would qualify for the Direct Install program, which has an upper threshold on average peak demand, TRC could consider lowering or removing this requirement.   The smaller entities benefit greatly from LGEA in terms of needing/using it for a roadmap for energy planning, and are less likely to be large enough to justify entering into an ESIP. Lowering or removing the peak energy demand threshold will also help to address equity in making the program more accessible to smaller and often more rural governments and school districts with fewer resources.

Tracking and Goals

The LGEA program currently tracks the number of audits, number of buildings, number of entities, square footage, budget spent on audits, committed expenditures, and total expenditures. They also track audited potential savings and potential for combined heat and power (CHP) and solar. Project attribution goals in the public compliance filing include applications that result from outreach, one-on-one meetings, events attended, and presentations.

Post-Audit Follow-up and Implementation Options

After the audit report is delivered, the Outreach team will follow up with participants after a few months to check on the installation status and answer follow-up questions. If the participants suggest that they will be installing ECMs at a future date, the team will reach out again to check on the status.

Process Evaluation Overview

Some of the key focus areas of this evaluation included:

1. **Clarity and completeness of program information** (availability of metrics, ease of understanding program attributes and benefits for potential applicants)
2. **Participation of eligible entities** (proportion of eligible entities applying, program promotion)
3. **Program barriers and delays** (time from application to audit completion, satisfaction with process)
4. **Follow-through from audit to implementation of measures**

Objectives of this evaluation are:

- To examine how successfully the program was transitioned from NJCEP to the utilities, and to offer recommendations on improvements based on participant feedback;
- To provide recommendations to program staff to improve program implementation, program participation, and completion of the program (installing ECMs) from various participant perspectives,
- To provide recommendations to improve program satisfaction among the various participants, including the entities receiving audits, ESCOs/contractors, and administrators;
- To conduct an evaluability assessment to assure that the data collection and data access can fully support the needed process and impact evaluations going forward; and
- To benchmark the LGEA program with other similar programs and to provide recommendations on best practices to program staff.

The evaluation focused on the sample of all audits completed between July 1, 2020 and June 30, 2022, (n=51), in order to include audits completed both before and after the transfer of the program to the utilities. This process evaluation is a mixed methods review of the program's delivery, performance, and documentation, with a focus on actionable recommendations for program improvements and information on program barriers and remedies.

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RESULTS

Highlighted Findings

Overall:

LGEA program staff have been successful at creating awareness of both the program itself and the potential energy savings opportunities for participants. A segment of customers, particularly schools with many facilities and entities without energy managers or third-party energy bill-paying services, find the application process to be cumbersome, resulting in some lengthy application times. Throughout the audit process, interactions with TRC are generally positive across all types of participating entities.

Although follow-through to implementation of measures post-audit is relatively good, the performance of the program in this aspect has declined since implementation responsibility transferred to the utilities along with the portfolio of energy efficiency programs for existing buildings.

 Specific Highlights:

- Most of the surveyed non-participants (schools and municipalities) are aware of the LGEA program[3].
- The factors rated as most important to an organization's decision to participate are alignment with budget cycles and the ability to obtain incentives/grants to install measures.
- The most common reasons eligible participants do *not* participate in LGEA is a lack of support from management and the capacity to apply.
- Application-related paperwork was not a large obstacle, especially if participants had a dedicated sustainability officer (or similar), or energy bill-paying service. Some used available technical assistance for help. In general, schools found application paperwork more challenging.
- Most program participants interviewed found the audit report easy to understand and the tables and charts informative.
- Some of the benefits of the audit report included creating awareness of the current state of facilities, identification of ECMs for cost savings, providing a tool to help managers communicate energy usage and conservation information to administrators and support decision-making, and being a good reference for future planning and grant submissions.
- Most program participants interviewed were satisfied or extremely satisfied with their interactions with TRC staff during the LGEA process.
- Top challenges of participating in the audit program reported by interviewees include the length of the process (public entities can't afford that much time because of budget planning cycles, staff turnover, etc.) and uncertain access to subsequent funding for installing measures.

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[3] The nonparticipant survey was taken by members of the New Jersey League of Municipalities and New Jersey School Business Administrators Association, which may have had a generally higher awareness of New Jersey Clean Energy Programs due to program outreach.

DETAILED RECOMMENDATIONS

Program Recommendations

Data-driven recommendations from this evaluation address the potential issues of concern for the LGEA program. They center on establishing program goals and metrics, reducing time and difficulty of the audit process, improving coordination with utilities and expanding promotion of the program.

ISSUE: Clarity and completeness of program information

ASSOCIATED RECOMMENDATION (#1): Establish program goals that can be tracked as metrics of program success.

Support:

- Current stated goal is to be an "educating and empowering program", which is not a quantitative/measurable goal.
- The program currently tracks the number of audits, buildings, square footage, and audit spending. Additionally, the outreach team tracks applications resulting from outreach, 1-on-1 meetings, number of events/presentations and attendance. These metrics directly reflect progress toward measurable goals.
- Energize Connecticut[4], and additional literature states goals and tracking as a best practice.
- Program administrator interviews indicated that additional metrics could be tracked.
- Many metrics related to program process and outcomes are not currently collected nor summarized in an accessible format.

Value/Benefit:

- Tracking metrics will help increase the evaluability of the program.
- Metrics will be helpful for entities considering the program to better evaluate their investment of time and potential savings and benefits.
- Tracked metrics would be illustrative of annual progress.

Specifics/Strategies:

- Establish program goals related to applicants (how many, percent of eligible entity type, size, etc.), audit process length, and quality of outcome for participants.
- Periodically ask program participants to respond to post-program surveys that evaluate their overall LGEA process experience and follow through and/or obtain feedback through focus groups or discussion forums at stakeholder meetings.
- Some suggested metrics related to program goals would be:
    - equitable and representative participation
    - process timeline
    - percent of participants that install measures post-audit
    - energy saved
    - audited potential savings
    - potential CHP and solar
- Publish details on these metrics on the LGEA website, similar to other programs.

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[4] Energize Connecticut, "Evaluation of Educate the Workforce, Educate the Students, Educate the Public and Customer Engagement Initiatives", 2021.

- Consider distinguishing larger from smaller energy users in presenting both participation data and metrics on follow-through, as well as distinguishing which entities use CEP programs versus other approaches to implement measures.

ISSUE: Participation of eligible entities

ASSOCIATED RECOMMENDATION (#2): Continue and strengthen the promotion of the program, including emphasizing cost savings and availability of utility EE program incentives.

Support:

- Relatively few non-profits participate in the LGEA program.
- No list of non-profits and other governmental organizations available.
- Both participant and non-participant data support that many towns and school districts get information about clean energy programs through membership in professional associations (newsletters, conferences, etc.) and through SJ participation.
- A school district professional association member reported that presenting case studies and real-world examples is a useful way to get more applicants.
- SJ has done fewer webinars to promote NJCEP since the transition to utilities.

Value/Benefit:

- More promotion of program benefits should spur more entities to apply and ultimately participate in the program.

Specifics/Strategies:

- Increase outreach to non-profits through state and regional membership organizations related to the faith-based, recreation, environmental and non-profit housing sectors.
- Highlight and leverage existing related and supportive programs like Sustainable Jersey that educate about and incentivize LGEA participation.
- Continued and increased support for 3rd party hands-on assistance could increase awareness and participation in the LGEA program through outreach presented at League of Municipalities, NJ School Business Administrators and through weekly e-blasts.
- Lowering or removing the peak energy demand threshold will also help to address equity in making the program more accessible to smaller and often more rural governments and school districts with fewer resources.
- Program administrator could work with Sustainable Jersey to consider updating and upgrading the Green Procurement Action, both in terms of specific energy efficiency equipment and overall process of ensuring that the right purchases get made.
- Investigate further options for program coordination to support LGEA program outreach, such as the DCA Shared Service Incentive Program and counties' shared services coordinators.

ISSUE: Program barriers and delays

ASSOCIATED RECOMMENDATION (#3): Reduce the time and difficulty of the process from application through completed report.

Support:

- Participating schools and non-profits, especially those without an Energy Manager or Sustainability Officer, tended to report more difficulty getting the proper application materials together (such as utility bills) and less certainty in navigating the implementation process once the audit was complete.
- In California, utilities are required to provide detailed usage data.
- ESCOs related that the audit process itself is taking too long and inhibits the ability of customers to plan and budget for the implementation of measures, and that Level 2 audits are not necessary because ESIPs normally begin with a Level 3 audit that largely supplants the value of the Level 2 audit report. (Level 2 audit is part of ESIP legislation)
- Participants also reported that the length of the process sometimes resulted in loss of management support, or in turnover of staff that were involved at the outset, resulting in loss of continuity.

Value/Benefit:

- Some clients may be deterred from applying because of the time required for collecting utility bills and completing the workbook.
- Better coordination with utilities about providing bill information will help applicants to complete the application faster.
- Reducing audit processing times can facilitate planning and increase the chances that participants can see the process through to the end and to implement measures to achieve savings and sustainability goals in a timely fashion or at all.

Specifics/Strategies:

- Applicants could use more assistance gathering the 14 months of utility bills. Establishing a clear point of contact with the utilities (one that is verified periodically by the program administrator) to provide bill information in a streamlined fashion would reduce the burden on the applicant.
- Review the application workbook to determine if all the requested data is necessary during the application phase or if it can be streamlined because much of the data will also be collected by the auditor later in the process.
- Consider offering assistance with a shared energy manager or circuit rider program to work with smaller, less well-resourced customers in particular. This could be a potential pilot program for small municipalities and school districts to assess whether increased assistance both increases satisfaction with the program application process and also increases the number of measures installed.
- Program administrators would work with Sustainable Jersey to develop an action and offer training on developing and maintaining such a management system that integrates sustainability into the organization's regular activities or offer more points for selected existing actions if combined with or integrated into a management system.
- The LGEA application could allow the program administrator to evaluate whether ESIP is likely and, if so, complete a Level 1 audit rather than a Level 2. The audit for those planning to enter ESIP could then include benchmarking with utility information, an equipment inventory, and a minimal list of measures. This recommendation has a possible regulatory barrier as Level 2 audit is part of ESIP legislation.

Furthermore, this evaluation highlights collecting and preparing (cleaning) energy bill data for analysis as a primary obstacle faced by municipalities, counties, local public authorities, and K-12 public schools (together, "local government"). Relevant findings and suggestions   include:

- The technology used by utilities appears to have evolved and there may be pathways to reduce data aggregation overhead.
- Evaluate the potential application of contemporary technology tools (e.g., artificial intelligence, data management and analysis) to the energy bill analysis process. The application of these tools could significantly

reduce the time it takes to process and analyze energy bills and develop energy conservation savings estimates.

- Centralize the collection and analysis process with TRC or other appropriate entity to eliminate the cost of the time-consuming efforts to gather and organize 14 months of detailed energy bills.

Train municipal, school district, etc. officials in building benchmarking using US EPA PM, which would simultaneously encourage participation in NJ's building benchmarking disclosure program while providing these entities a direct method for tracking their own energy performance/improvement relative to peers. Taken together, these steps could lead to greater participation in the program and ultimately increased energy savings

ISSUE: Follow-through from audit to implementation of measures

ASSOCIATED RECOMMENDATION (#4): Increase attention on the post-audit linkage of the participant to appropriate programs and paths to implementing ECMs, with special attention to ensure that local procurement needs are recognized.

Support:

- From 51 audits in two-year sample, there was a 40% overall follow-through rate to ECM installation.
- Customer follow-up is weak – 3 out of 4 interviewed utilities do not conduct any follow-up after audit is complete.
- Direct install program for public entities is on hold due to complications with DCA procurement and contracting requirements.
- Non-participants reported that having more assurance of incentive opportunities would encourage more interest in the LGEA audit.
- A number of participants indicated that the audits were useful for purposes of energy master planning and awareness of future capital needs.

Value/Benefit:

- Assuring that the audit report provides a roadmap and appropriate foundation for the installation of measures is key to fulfilling the program goal of ECM installation.
- Better coordination between the program administrator and utilities at the completion of the audit will help clients to better understand options and should lead to higher rates of follow-through.

Specifics/Strategies:

- In the audit report, include clear descriptions of incentives and payback, specifically information about no/low-cost financing options that would increase ECM installation. (To achieve this, input from utilities is needed on appropriate incentives for customers.)
- Coordinate between the program administrator and utilities on post-audit follow-up (3 months, 6 –months, etc.) Follow-up e-mails should include all relevant contact information to facilitate connections between utility and client.
- Provide a list of post-audit actions, with phasing options, including case studies to help participants to better understand options (best practice example from NYSERDA FlexTech Program[5]).
- The shared (or strategic) energy manager program described above could assist with post-audit planning and implementation steps, especially for those participants not electing to enroll in ESIP.

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[5] NYSERDA, "Process Evaluation FlexTech Program Final Report", July 2014. https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Publications/PPSER/Program-Evaluation/2014ContractorReports/2014-flextech-program-process-evaluation.pdf

- For participants who will be pursing the ESIP pathway, wherein most likely an ESCO will be contracted and the ESCO will perform an investment grade audit, consider a more streamlined audit focused on benchmarking. (See above.)
- LGEA audit reports will be the most useful if they can direct entities into the programs that can serve them and their particular needs as public entities. Notably, NJ's local government finance and procurement laws (e.g. favoring lowest bid) can constrain public entities' ability to implement the ECM's recommended in LGEA audits.[6] Audit reports could be augmented to be cognizant of these regulations and to be more prescriptive in approaches to how local governments can work to implement green energy measures in compliance with procurement restrictions.

Evaluability Recommendations

Rutgers CUPR assessed the evaluability of the LGEA program as part of this evaluation. The LGEA program data available from TRC was reviewed as part of the process evaluation. The data available for review included:
- A project matrix with dates, contact information, and measure installation status;
- listing of projects not completed;
- program application and marketing materials;
- TRC compliance filings; and
- Final audit reports and presentations.

While the data provided was adequate to evaluate the program, Rutgers CUPR recommends the following to improve evaluability:

1. **Develop program theory and logic model.**
A first step to improving evaluability of the LGEA program is to develop a program logic model, which helps facilitate effective program planning, implementation, and evaluation in the program team. A logic model visually represents the available resources, program activities, and intended outcomes and impacts.

2. **Define specific program goals and links to "effects" tracking.**
As mentioned as part of Program Recommendation #1, establish specific program goals that can be tracked and subsequently used to conduct program impact evaluations in the future.

3. **Work with utilities to track installation of ECMs.**
Also part of Program Recommendation #1, work in partnership with the relevant utilities to track what audit recommendations are implemented by the participants. This will allow further tracking of program accomplishments and contribute data necessary for future impact evaluations.

4. **Ensure that building baseline conditions and project savings are being adequately tracked in the tracking database.**
Ensuring that the baseline condition of audited buildings and any resulting savings (from Recommendation #3) are being tracked in the relevant tracking database will further increase the evaluability of the LGEA program and allow future process and impact evaluations to have all the needed data in one place.

5. **Develop list of eligible non-profit participants, and of "other government" participants.**

As part of Program Recommendation #4, and to expand the program's reach to potential participants, work to develop a potential list of non-profit sector organizations. It is clear that the main non-profit participants tend to be religiously

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[6] As of July of 2022, Direct Install, the incentive program most used by government entities, has been effectively unavailable to public entities over issues related to local government procurement and prevailing wage laws. For school districts, contractors additionally need to be certified under the Division of Property Management and Construction and be registered as a public works contractor.

affiliated, so the program administrators have a natural outreach partner in groups like GreenFaith and other faith-based environmental organizations. Additionally, a list of eligible county, State, and other governmental organizations would be useful for program outreach.

METHODOLOGY

The process evaluation used the following methods:

Materials Review:
The team collected, reviewed, and assessed documents including forms, brochures, and reports for their clarity and completeness. These included:
- LGEA promotional materials on NJCEP website
- Application materials
- Program/process data from TRC and from Sustainable Jersey
- Completed audit reports and presentations
- TRC compliance filings

Primary Data Collection – Surveys of Participants, Partial Participants, Program Administrators, Utilities and Non-participants:
Primary data collection consisted of the following:
- Participant Interviews
- Partial Participant Interviews
- Program Administrator (TRC/BPU) Interviews
- Utility Interviews
- ESCO Interviews
- Non-participant online survey

The team conducted virtual (Zoom) interviews with representatives from entities participating in the program during the sample timeframe (25), partial participants who had started the LGEA application process but had dropped out before completion of the audit (3), program administrators (3), utility representatives (2), and ESCO personnel (4). An online survey, distributed through statewide associations of municipal officials and school business administrators, gathered information from eligible entities who had not participated in LGEA to assess levels of awareness and perceived barriers and preferences for an energy audit program. The study team also held conversations with several other individuals for specific information or follow-up as needed, including from Sustainable Jersey, the NJ School Business Administrators Association, and selected subject matter experts. Interview guides and online survey protocol are found in Appendices A through F.

Comparable Programs Review:
The team researched a set of programs from other jurisdictions that have achieved success in energy audits of public and non-profit organizations, based on advice from experts. The purpose was to determine factors that might influence success and gather evidence about better ways to achieve the energy efficiency goals associated with LGEA.

Evaluability Assessment:
CUPR assessed the evaluability of the LGEA program as part of this evaluation. The LGEA program data available from TRC was reviewed as part of the process evaluation. The data available for review included:

- A project matrix with dates, contact information, and measure installation status;
- listing of projects not completed;
- program application and marketing materials;
- TRC compliance filings; and
- Final audit reports and presentations.

SUPPORTING ANALYSIS

Materials Review

The materials review included an assessment of completed audit reports, audit result presentations, TRC compliance filings, LGEA promotional materials (both from the period reviewed and more recent), website, application materials, stakeholder webinars, and other supporting data.

The review also included examining the role of Sustainable Jersey's municipal and school energy efficiency actions and individual town and school submissions for those actions in spurring participation in LGEA.   A complete summary of the materials reviewed is found in Appendix G.

Key findings included:

- Audit reports were consistent, informative, and easy to read.
- Compliance filings have Outreach team goals that include the LGEA program but do not include specific savings or participation goals for the LGEA program.
- The marketing brochures and program website were clear and easy to understand.
- Program brochures do not make it clear after the transition (post July 1, 2021) that the participants would need to work with their utility to receive program incentives.
- The program website had applications available, as well as other supporting information and links to ease applicant burden.
- The program application is very short and easy to complete, but the accompanying workbook is much more detailed and requires a deep knowledge of the buildings being audited.

Review of SJ materials included data available through the Sustainable Jersey Data Center which provides information about which municipalities participated in the LGEA program. The data provided at the end of 2021 does not cover the full period of this LGEA process evaluation. In addition, Rutgers CUPR communicated with SJ staff regarding their interface with the LGEA Program. BPU funds SJ to provide technical assistance, and as part of that work, assistance staff sometimes matches a local government with the LGEA program. In those cases, SJ is available to assist throughout the application process, if necessary. They also send e-mail blasts, host informational webinars for NJ municipalities, and hold occasional workshops on energy efficiency for both municipal and school organizations.

Primary Data Collection

Program Participant Interviews

The sample frame of program participants was all of the 51 LGEA audit reports completed during the two-year period that started from one year prior to the transition and ended one year after the transition period (July 1, 2020, through June 30, 2022).

<u>Sample Compared to State</u>

The 26 schools and 15 municipalities that participated in LGEA during the sample timeframe were compared to rest of the schools and municipalities statewide to determine how similar the sample is to the state as a whole in terms of demographic and economic characteristics. See Appendix H for tables with statistics.

- Participant schools in the sample were not significantly different from the rest of the state in total state revenue, enrollment numbers, appropriations, or percent minority students.
- Participant schools in the sample have significantly greater population density in their districts than the rest of the state's school districts.
- Participant municipalities in the sample have significantly larger populations and higher populations densities than the rest of the state's municipalities.

An interpretation for why larger municipalities participate in greater proportions than smaller ones could be that larger municipalities have more resources and capacity to engage in energy-related initiatives. However, these findings must be approached with caution, as they do not establish causation and have several limitations, including the short study period.

Stratification of Sample

The proportional breakdown of this sample resulted in slightly more audits in the post-transition period (30) than in the pre-transition period (21), but the audits completed prior to the transition had a higher percentage of the total buildings (57%) so there were a higher proportion of larger/multi-building facilities in the pre-transition set. By type of entity, schools were 50% of the sample, and towns 29%, with the rest split between non-profits and other government (state or regional). Schools had a higher proportion of the number of buildings, as schools typically are multi-building campuses. See Table 2 below.

Table 2: Sample Stratification by Entity Type & Before/After Transition

Date Range	Entities	Buildings
Pre-transition: 7/1/20 – 6/30/21	22 (42%)	215 (57%)
Post-transition: 7/1/21 – 6/30/22	30 (58%)	163 (43%)
Building Type		
School	26 (50%)	216 (57%)
Municipality	15 (29%)	103 (27%)
Non-Profit	5 (10%)	17 (4%)
Other Government	6 (12%)	42 (11%)

- o   Schools includes K-12, both public and private
- o   Other Government includes State, County, and various Authorities and Commissions
- o   Non-Profit includes religious institutions and the Casino Redevelopment Authority

Regarding follow-through to implementation of measures, Rutgers CUPR found that 21 of the 51 participants in the LGEA program in the sample years did participate in a New Jersey Clean Energy program, for a follow-through rate of 40%. (See Table 2). It's important to note that this is an undercount, as it does not include participants who installed measures without a program incentive (self-installs) and it does not include participants who installed measures through utility programs. A total of 11 out of 21 of the participants in the pre-transition year installed measures (52%), while 10 out of 30 of the participants in the post-transition year did so (33%).

Completed Interviews

The interview protocol was developed and tested in the spring of 2023. It contained questions about participants' experiences and opinions about program engagement, implementation, communications, and positives and negatives about the overall process. Questions were a combination of yes/no, Likert scale, and open-ended. (See Appendix A for interview protocol and Appendix I for full report of results).

The results were analyzed by looking at frequency distributions for dichotomous variables and the Likert scale questions and performing qualitative analysis of open-ended questions. The team also looked at between-group comparisons of the Likert scale responses by the type of entity (school, municipality, other), by whether the entity had followed-through to implement ECMs (yes/no), and by whether the audit report was completed before or after the transition.

The team completed interviews with 25 entities in the participant sample between May and September of 2023. Attempts were made with all 51 in the sample, and these attempts included at least three e-mails directed to the person listed as the contact for the LGEA audit, or if that person was no longer there, to a successor to that position or someone

else who had attended the audit presentation. In most cases, a phone call was also placed to find someone who could participate. After no responses to these multiple attempts, the team considered the entity as non-responsive.

Job titles of those interviewed in municipalities and other government agencies were most commonly Energy and/or Sustainability Specialists, situated in the Planning or Engineering Departments. At the schools, interviewees came mostly from the Business Administrator's office and Facilities or Energy Officers.

The set of entities with completed interviews matched closely in type with the full sample. (See Table 3.) The proportion of schools was very close between the two groups (48% in interview group to 45% in sample), while the proportion of municipalities was slightly lower and the proportion of "other government" slightly higher in the interview group. No universities responded to requests for interviews.

Table 3. LGEA Entities in Total Sample and in Interview Group by Type

Customer Type	Number in two-year sample	Percentage of two-year sample	Interviews Completed	Percentage of Completed Interviews
Municipal	15	29%	5	20%
School	23	45%	12	48%
Non-Profit/Religious	5	10%	2	8%
Other Government	6	12%	6	24%
University	2	4%	0	0%
Grand Total	51	100%	25	100%

The evaluation yielded findings in the areas of program engagement (awareness and entry into the program), implementation (completion of audit process and follow-through), communications (interactions with program administrators) and overall assessment.

Engagement:

- Main reasons to engage in the program included: awareness of cost-saving opportunities, and access to grants/ESIP (See Figure 2).
- Paperwork was not a large obstacle in the application, especially if participants had a dedicated sustainability officer (or the like), or energy bill-paying service. Some used available technical assistance for help. Schools seem to have a slightly harder time with paperwork/application forms. (See Table 4).
- Participants with more recently completed audits are slightly more satisfied with application paperwork (See Table 5)

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Figure 2. Open-ended question: *What was the motivation for participating?*
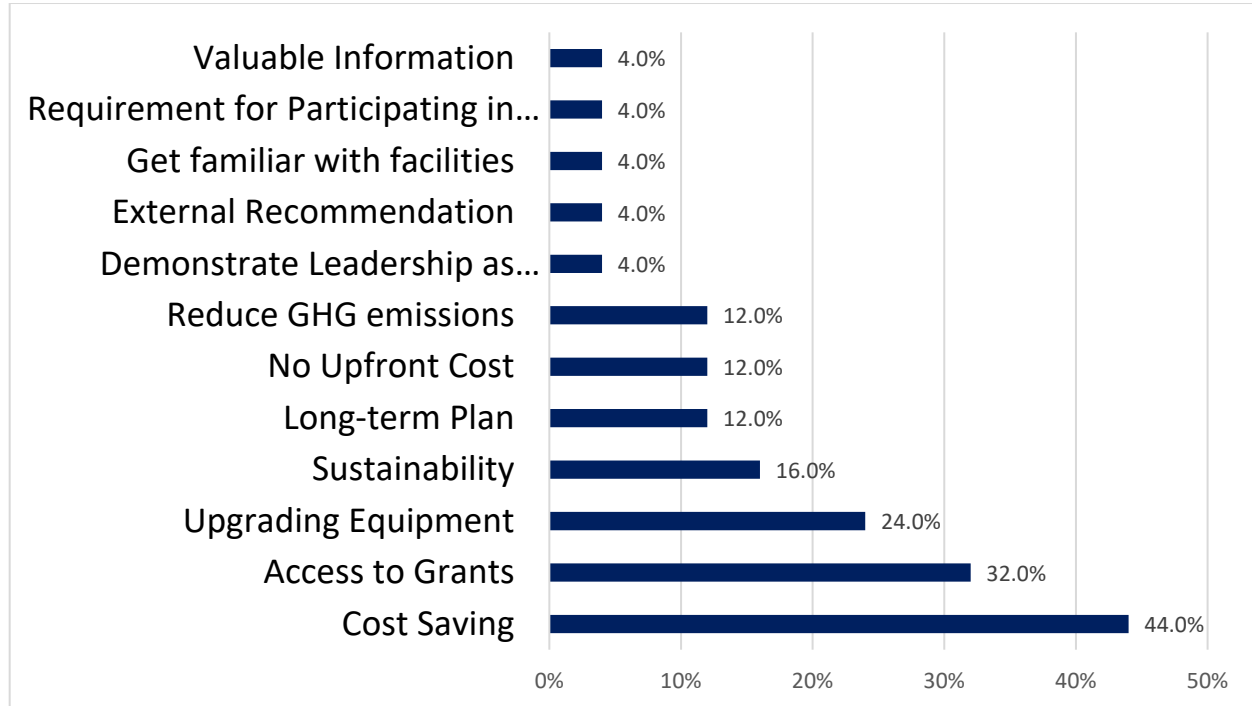**Qualitative Thematic Analysis**

Table 4. Satisfaction with Forms and Paperwork of Program Entry by Type of Entity

Satisfaction Level	Total	Municipality	School District	Other
Total Count (Answering)	18.0	4.0	8.0	6.0
Extremely dissatisfied	11.1%	0.0%	25.0%	0.0%
Somewhat dissatisfied	5.6%	0.0%	12.5%	0.0%
Neither satisfied nor dissatisfied	22.2%	25.0%	37.5%	0.0%
Somewhat satisfied	38.9%	25.0%	25.0%	66.7%
Extremely satisfied	22.2%	50.0%	0.0%	33.3%

Table 5. Satisfaction with Forms and Paperwork of Program Entry by Fiscal Year
(Before/After Transition)

Fiscal Year/Transition	Total	FY 21	FY 22
Total Count (Answering)	17.0	8.0	9.0
Extremely dissatisfied	11.8%	25.0%	0.0%
Somewhat dissatisfied	5.9%	12.5%	0.0%
Neither satisfied nor dissatisfied	23.5%	12.5%	33.3%
Somewhat satisfied	35.3%	50.0%	22.2%
Extremely satisfied	23.5%	0.0%	44.4%

Selected quotes about motivation for the program:

> "(It was a) great first step in understanding energy consumption"

> "(It is our) goal to develop an Energy Masterplan for 20 years. This is a kickstart to that development (and) it is free to do it."

> "(We are) striving to get the school to carbon neutral- it was a great program that has financial incentives and great way to increase efficiency"

> "We are involved with Sustainable Jersey, and we had a person from Sustainable Jersey assisting us, so we decided to move forward."

> "To go through ESIP. That is the ONLY reason to do it. The other rebates are available without doing LGEA"

Implementation/Audit Process:

- Most (76%) program participants found the audit report easy to understand and the tables and charts informative.
- Some of the benefits of the audit report included creating awareness of the current state of their facilities, identification of ECMs for cost savings, providing a tool to help managers communicate energy usage and conservation information to administrators and support decision-making, and being a good reference for future planning and grant submissions.
- Schools were more dissatisfied with closeout.

Communications:
- Interactions with TRC were mostly good across all participants. Most (71%) program participants interviewed were satisfied or extremely satisfied with their interactions with TRC staff during the LGEA process.

Overall:
- Top benefits of the program reported by interviewees were that the audit created awareness of energy efficiency opportunities, identified ECMs, and was an aid to future planning and access to grants.
- Top challenges of the LGEA program reported by interviewees were the length of the process and uncertain access to subsequent funding for installing measures.

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Figure 3. Open-ended question: *What were the negatives/challenges of participating in the program?*

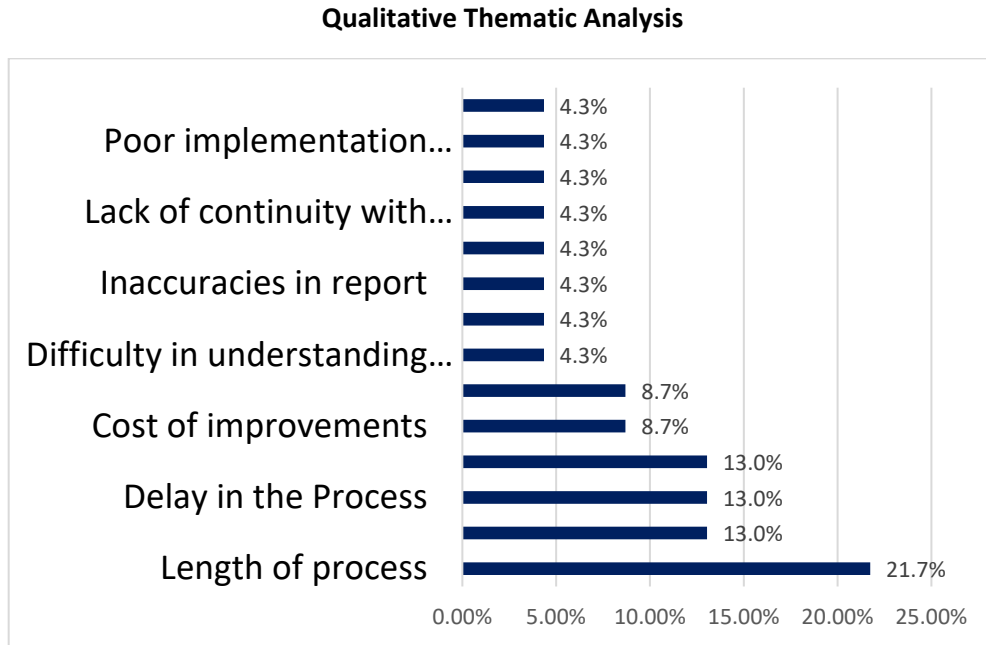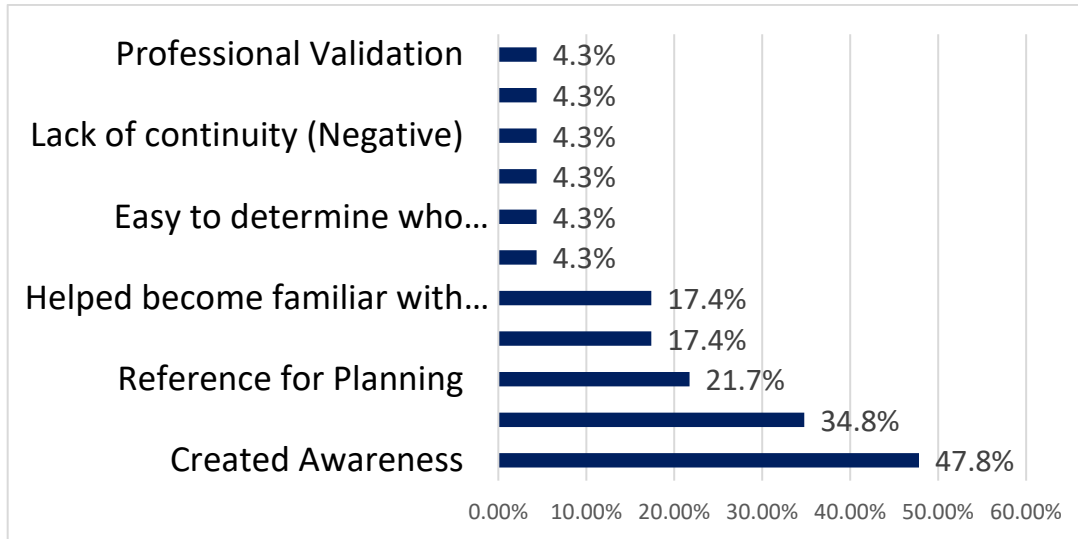**Qualitative Thematic Analysis**

Figure 4. Open-ended question: *What were the positives/benefits of participating in the program?* **Qualitative Thematic Analysis**

Partial Participant Interviews

CUPR interviewed "partial participants," or customers who attempted to participate in the program but either canceled their application or were rejected. Of the nine entities who were considered partial participants, Rutgers CUPR was able to interview three. They included a water treatment facility, a school district, and a non-profit organization.

Key findings were:

- All indicated that their interest in the program developed because of aging buildings and the desire to update the equipment and possibly reduce energy bills.

- Interviewees indicated overall dissatisfaction with the difficulty of gathering the information for the LGEA application process and the responsiveness of TRC.
- Interviewees suggested that an improvement would be for program staff to come on-site to see what data was needed instead of requiring everyone to fill out the same forms.

Program Administration Interviews

Rutgers CUPR spoke with multiple TRC staff during the course of the study, including the Director of Policy and Planning, the Associate Vice President, the LGEA Program Manager, the C&I Program Manager and the Outreach Manager. Information that administrators provided about program barriers, challenges or successes is summarized here.

Key findings included:

- Program staff feels that overall information to customers has diminished post-transition because they have less visibility into available incentives.
- Program staff noted that the utilities have not (or cannot) share customer information on project completions.
- Program staff expressed concern that a focus on attaining specific goals might change the dynamic of the program (e.g. more focus on bigger customers with higher savings).
- Program staff noted that they feel like LGEA marketing is effective as, at times, they have more work than they can handle.
- Program staff noted the importance of being mindful to balance a robust pipeline (from state facilities especially) and the possibility that the program may hit its budget cap.
- Program staff noted that they are aware of some reasons for non-participation, including the inability to complete the program application, difficulty in getting the required utility bill data, lack of staff or budget resources to devote to process, and not needing an audit to implement a planned project.
- Program staff noted that the strengths of the LGEA program include their customer service, particularly the useful reports and presentations.
- Program staff noted that areas for improvement include the need for additional application assistance and post-audit assistance (help in implementation of ECMs).
- Outreach staff recognize that non-profits are lagging as a sector and are a more difficult segment to reach with few statewide associations.

Utility Interviews:

Rutgers CUPR conducted interviews with four New Jersey utilities: Atlantic City Electric, JCP&L, South Jersey Gas, and Elizabethtown Gas. All of the contacts interviewed had attended audit report meetings, but none knew about the installation of ECMs resulting from the audits. One of the main results from interviews with utility staff is concern over the Direct Install program, which was one of the main routes for ECM installation prior to the program transition. Due to existing state law, public entities that participate in the Direct Install program must adhere to prevailing wage regulations and also obtain multiple contractor bids. There were several years where this regulation was waived for the Direct Install program, but this is no longer the case and some utilities are not willing or able to comply with these rules (and ensure that their customers are adhering). This has caused the Direct Install route to effectively shut down in New Jersey. The BPU and DCA are in continued discussions over this regulation.

Additional findings were:

- All utility representatives reported a high satisfaction with the contents of the audit report and the meeting with customers.
- Three of the four utilities do not conduct any follow-up with customers after the meeting.

ESCO Interviews:

The Rutgers CUPR team interviewed staff and managers from four ESCOs. Job titles included Account Executive, Engineering Manager, Sales Manager, VP's and Director of Technical Solutions. The team also reviewed comments prepared by individual NJ ESCOs and by NAESCO (National Association of Energy Service Companies)

Key findings included:

- ESCOs believe that audits take too much time. (They noted that this holds up the process and that public entities can't afford that much time, budget planning, staff turnover, etc.)
- ESCO staff noted that a Level 2 audit is not technically necessary for clients going into ESIP – it is either not accurate or not complete enough to be useful. Technically, a Level 1 audit would be more appropriate for ESIP, while a Level 2 audit for smaller clients who will not going into ESIP could be more useful.
- If an audit is deemed necessary, then ESCO staff believes it should be only benchmarking and equipment inventory, and that the audit should be good for ESIP eligibility for up to ten years.
- ESCOs reported to us that since *all but the limited prescriptive rebates have been shut down for public entities*, it will be important for BPU, utilities, and DCA to work together to figure out how to make them work again.

*Non-Participant Survey***:**

An online survey was developed and tested to determine the awareness of and perceived barriers and benefits of the audit program for non-participants. Questions were mostly close-ended (multiple choice and yes/no), with one Likert scale question that asked: "How important are each of the following in making it more likely that your organization would participate in the LGEA program?" If an organization had indeed participated in LGEA (since the distribution did not screen participants out), then the respondents answered additional questions about their experience.

The survey was distributed to schools and municipalities across the state in September and October 2023. The New Jersey League of Municipalities (NJLOM) and the New Jersey Association of School Business Officials (NJASBO) agreed to distribute the link to the online survey via e-mail newsletters and repeated the announcement twice at two to three-week intervals. These organizations are umbrella membership organizations comprised of representatives from New Jersey's 566 municipalities (NJLOM) and business administrators from New Jersey's 546 public school districts. There is no way to determine exactly how many people received the survey link as more than one person at each town or school may receive the newsletter and it may be forwarded. In addition, the survey was distributed to a small subset of private schools in NJ through a Facilities Managers listserve.

A total of 87 responses were tallied, with almost 60% from municipalities and about 35% from schools. (See Table 6).

Table 6. Non-participant Survey Responses

Type of Entity	Percent	Number
Municipality	57%	50
School	34%	30
Other	9%	7
TOTAL	100%	87

Highlighted Findings:

- 17 of the 87 (20%) have participated in the LGEA program.
- Almost half of the respondents are members of Sustainable Jersey.

- Very few of the schools or towns employ an Energy Specialist/Professional.
- Most (about 70%) have heard of the NJ Clean Energy Program.
- Most (80%) have heard of LGEA.
- The most common reasons eligible participants do *not* participate in LGEA is a lack of support from management and capacity to apply.
- Professional Associations and Sustainable Jersey are places where schools and towns learn about NJCEP.
- Over 50% of respondents have done some energy efficiency installation in the past five years, and the most common ECM is lighting, followed by HVAC.
- Most ECMs were funded through capital or operating budget, not incentives.
- About 70% of respondents plan to implement energy conservation or clean energy measures, with the most common being solar installation and lighting replacement.
- The factors rated as most important to an organization's decision to participate are alignment with budget cycles and the ability to obtain incentives/grants to install measures.

See Appendix J for complete survey results.
Selected excerpts from comments:

"We are an extremely small town and do not have the staff or budget to do the paperwork/grant writing needed for most of these programs."

"Significant grant funds in concert with energy savings metrics would help smaller towns justify clean energy investments to overburdened taxpayers."

Review of Comparable Programs

Rutgers CUPR reviewed similar programs in other states to assess what lessons can be learned from these programs. Table 6 below provides a summary of the programs reviewed, their market focus, and barriers and relevant recommendations that the team could elicit from the review. Detailed notes are in Appendix K.

Key take-aways from the review are:
- The team found no programs that focus on both municipalities and schools and are focused exclusively on audits.
- Similar audit programs are not regularly evaluated, so that it is difficult to know if program components provide evidence-based models for adoption or modification to New Jersey or not.
- Similar audit programs do not provide strong statements of goals and most do not claim savings.
- The comparable programs displayed similar barriers to LGEA including limited capital, limited staff time, split incentives, lack of knowledge, and funding uncertainties at entities.
- Some relevant program recommendations include conducting regular 3- and 6-month follow-ups, streamlining applications, providing participants with lists of post-audit actions, funding sources, and case studies.

Table 7. Summary of Comparable Programs

Program	Description	Market Focus	Program Barriers & Relevant Recommendations
NYSERDA FlexTech	Provides a cost-share (up to $500k) to offset the cost of energy audits or other types of energy assessments. Eligible to any C&I customers that pay into the system benefits charge (SBC.) Goal is to match participants with	C&I	Noted program barriers include study cost, lack of staff time, and securing capital for measure implementation. Recommendations:

	compelling information to justify investment.		• Streamline application process- have project managers work on similar projects over time. • Provide list of post-audit actions to take including funding sources and similar case studies
NYSERDA Small Commercial Assistance Program	Includes a comprehensive walk through of the facility, Site staff interviews, Utility bill analysis, low-cost/no-cost and capital improvement energy efficiency upgrades, and Energy study report that outlines potential energy and cost savings opportunities for facility.	Small Business (less than 100 employees)	Noted program barriers include limited capital, lack of employee time, split-incentives and lack of knowledge. Also noted that non-profits tend to have funding uncertainty. Recommendations: • Follow up with participants at 3 months and 6 months.
ComEd Facilities Assessment	Includes 10-minute phone call, site visit and energy usage assessment with energy management tool, and a report with incentive opportunities and paybacks	C&I, Local Government	Has not been evaluated
Bright Schools Program for K-12 (CA)	Includes reviewing existing proposals and designs, developing equipment performance specifications, reviewing equipment bid specifications., and reviewing commissioning plans.	K-12 Schools	Has not been evaluated
XCEL Partners in Energy	Partners in Energy provides tools and resources to support communities developing energy action or electric vehicle plans, help implementing the plan, and resources to help communities stay informed and achieve their energy goals	Local Government	Has not been evaluated
Energize (CT)	Eversource or UI commercial, industrial, or municipal customers that use more than 1,000,000 kWh annually across all their CT properties, and UI customers with an average 12-month peak demand over 200kW are eligible for this program. For natural gas-saving measures, you must be a firm customer of CNG, SCG, or Eversource.	**Utilities** (Eversource, UI, CNG, SCG)	utility-authorized contractor performs no cost no-obligation audit that includes lighting, HVAC, and refrigeration systems. Contractor provides a customized recommendation that shows how much energy and money the customer could save by upgrading to energy-efficient equipment. The contractor can then manage the whole installation process. Incentives and low-interest on-bill payment plans can help pay for upgrades.

Table 8. LGEA Evaluability Matrix

QUESTION	COMMENT
1. Is it clear what staff from what company will operate the program?	Yes, TRC operates the program
2. Is there an explicit program theory or logic model?	No, there was no available logic model
• **Indictors of success?**	There are no goals indicated for the program, beyond outreach goals
3. Is there a description of the target market?	Yes, municipalities, schools and non-profits with demand over 200kW
• **Is it possible to identify the potential population of participants and nonparticipants?**	Yes, for the municipal and school sector. No, for the non-profit sector … too large and diffuse
4. Is there a marketing plan or is there a requirement to develop one in the SOW?	No marketing plan available for review.
• **Is there a way to track participants?**	Participants are tracked during the program with follow ups. Outreach team does conduct some follow up but we have recommended more formal follow up procedure
• **Is there a way to track nonparticipants?**	Yes for schools and municipalities. No for non-profits
5. Have proposers included an electronic tracking database in their plans or is there a requirement to develop one in the SOW?	TRC does have a tracking database
• **Does it include the elements needed contact participants & non-participants of various program activities?**	TRC does have the contact info for the LGEA program participants. Municipal and Public school contacts are available publicly. Private schools, charter schools, religious organizations and other non-profits are not easily available
• **Does it include program forms, surveys and implementation back-up or is there a requirement to develop these in the SOW?**	Program application forms and workbooks are available on website. No surveys or customer follow up was available
• **Are specific locations of measures being tracked? Can they the installed measures be found?**	The recommended measures are tracked by location. This tracking does not follow through to implementation
• **Are program assumptions being tracked on a site specific level (e.g., hours of operation)**	Customer workbook and Audit report track specific location data
• **Is the delivered energy saving service and/or installed retrofit being recorded?**	Yes, Pre transition the LGEA team tracked installs at a high level (types of measure or program participation, not specific measures and counts) Post transition, ESIP participants are available

• **Does it include the outcome/result of the activities?**	No
6. **Will the program be delivered with trade allies?**	Trade allies install ECMs (not technically part of LGEA)
• **What type of trade allies**	HVAC, Energy Services, Solar, Lighting
• **Are the trade allies well enough defined to identify a potential group of participant and nonparticipant trade allies?**	No
• **Is there a way to track participating trade allies?**	Partially, some utilities had lists of participating trade allies available (though none had LGEA installs to date). All utilities have trade ally databases on their websites.
• **Is there a way to track nonparticipating trade allies?**	No
7. **Are savings assumptions documented?**	NJ TRM
• **Are the pre-retrofit or baseline parameters being recorded?**	Yes, as part of audit
• **Does the database record the as-found values for parameters used to estimate ex-ante savings?**	Yes
• **Does baseline monitoring need to take place?**	No
• **Can one of the impact evaluation methods specified in the NJ EM&V Guidance Document be used?**	Yes
• **Are there code compliance or program overlap issues for savings estimation?**	No
• **Is it clear what staff from what company will operate the program?**	Yes, TRC operates the program
• **Recommendation to improve evaluability:**	1. Develop program logic model 2. Develop program goals 3. Develop list of eligible non-profit participants 4. Work with utilities to track installation of ECMs Ensure that building baseline conditions and project savings are being adequately tracked in the tracking database

APPENDICES

A. Participant Interview Guide

B. Partial Participant Interview Guide

C. Program Administrator Interview Guide

D. ESCO Interview Guide

E. Utility Interview Guide

F. Non-Participant Survey Instrument

G. Materials Review Summary

H. Sample Analysis Tables

I. Participant Interview Results and Crosstabs

J. Non-Participant Survey Results

K. Comparable Programs Review

Appendix A. Participant Interview Guide

NJ Clean Energy Program's Local Government Energy Audit (LGEA)
Program Process Evaluation
Interview Guide – Participants

Entity Type

- o Municipality (1)
- o School District (2)
- o Independent Non-profit (3)
- o Faith-based Organization (4)
- o Other (5) _____

Thank you for taking the time to provide input about NJ's LGEA program. Rutgers Center for Green Building (RCGB) is conducting a Process Evaluation of the Local Government Energy Audit (LGEA) program, which is managed by TRC as part of the New Jersey Clean Energy Program (NJCEP).

The LGEA program provides financial incentives to cover the cost of having an energy audit performed on eligible facilities owned by municipalities, school districts, 501(c)(3) non-profits, and other local and state government entities. The goal of the energy audit is to provide Applicants with information on how their facilities use energy, identify energy conservation measures (ECMs) that can reduce energy use, and put Applicants in a position to implement these ECMs and to guide Applicants towards appropriate NJCEP equipment incentive programs to receive financial incentives for implementing the ECMs.

Goals for this interview:
  • To understand how the program works overall
  • To gather information about your experience with the program, including successes and challenges you have had

We expect this interview to take about 20 minutes. Do you have any questions for us before we begin?

How did the participant entity find out about the LGEA program?

- o NJ Clean Energy Program Website (1)
- o Colleagues/word of mouth (2)
- o Social media (3)
- o PSA (6)
- o Conference/event (4)
- o Previous Experience (7)
- o Business Administrator (8)
- o Other: (5) _____

What was the motivation for participating in LGEA?

  _____

Who managed the process for the participant entity?

  _____

Was there a designated point of contact at [the participant entity] to work with LGEA Program staff?

What was your level of satisfaction with the forms and paperwork involved? (On a scale of 1-5 from extremely dissatisfied to extremely satisfied).

- o   Extremely dissatisfied (6)
- o   Somewhat dissatisfied (7)
- o   Neither satisfied nor dissatisfied (8)
- o   Somewhat satisfied (9)
- o   Extremely satisfied (10)

Why? How could it be improved?_____

Did you have any issues supplying the data required on the application form?

  _____

What was your level of satisfaction with the program entry/joining requirements? (On a scale of 1-5 from extremely dissatisfied to extremely satisfied).

- o   Extremely dissatisfied (1)
- o   Somewhat dissatisfied (2)
- o   Neither satisfied nor dissatisfied (3)
- o   Somewhat satisfied (4)
- o   Extremely satisfied (5)

Why? How could it be improved?_____

Did you use any resources from Sustainable Jersey – e.g., workshops/trainings?

- o   Yes (4)
- o   No (5)
- o   Not Sure (6)

If yes, which ones?_____

Did [the participant entity] participate in the Sustainable Jersey program?

- o   Yes (4)
- o   No (5)
- o   Not Sure (6)

If yes, did (muni/school) submit for the applicable Sustainable Jersey actions (e.g EE for municipal facilities/school facilities)? Points earned?_____

Are there other resources you utilized to assist in the process of either the LGEA audit or implementation of its recommendations?

- o   Yes (1)
- o   No (2)
- o   Not Sure (3)

If yes, which ones?_____

What kind of resources would help most?_____

Please describe the steps you go through from your first contact with the program, through the audit (if applicable), and implementation (if applicable)._____

Did you review the audit report?

- o   Yes (4)
- o   No (5)
- o   Not Sure (6)

Did you find the presentation of the audit results and recommendations:

- o   1 - Difficult to understand (1)
- o   2 - Somewhat difficult to understand (2)
- o   3 - Neutral (3)
- o   4 - Somewhat easy to understand (4)
- o   5 - Very easy to understand (5)

If 1 or 2, how specifically could the report have been presented better to be easier to understand?
If 4 or 5, what specifically was it about the report that made it easy to understand?_____

Did you use the benchmark data provided?

- o   Yes (4)
- o   No (5)
- o   Not Sure (6)

If yes, how?_____

Was the audit report information useful for other reasons?

 _____

Do you have separate electricity and gas providers?

- o   Yes (4)
- o   No (5)
- o   Not Sure (6)

How did that affect your ability to complete the project?_____

Did the participant entity implement any of the energy conservation measures (ECMs) that were recommended through the program?

- o   Yes (6)
- o   No - SKIP TO __ BELOW (7)
- o   I'm not sure (8)

If yes, what was implemented?_____

What utility/contractor implemented your ECMs?_____

Is there anything you'd like to share with us about the implementation of ECMs?_____

Was the need to install a bundle of ECMs rather than individual ECMs an issue for the participating entity?

- o   Yes (1)
- o   No (2)

o   Not Sure (3)

Why or why not?_____

Were there ECMs that you would have preferred, but which were not shown to be of most benefit?

o   Yes (1)
o   No (2)
o   Not Sure (3)

If yes, which ones?_____

What was your level of satisfaction in your interactions with TRC? (On a scale of 1-5 from extremely dissatisfied to extremely satisfied).

o   Extremely dissatisfied (1)
o   Somewhat dissatisfied (2)
o   Neither satisfied nor dissatisfied (3)
o   Somewhat satisfied (4)
o   Extremely satisfied (5)

Why? How could it be improved?_____

What was the experience of the participant entity during the handoff between TRC (audit) and the Utilities or Contractor (implementation)? How can this handoff be improved?_____

What was your level of satisfaction in your interactions with the Utility/Contractor? (On a scale of 1-5 from extremely dissatisfied to extremely satisfied).

o   Extremely dissatisfied (1)
o   Somewhat dissatisfied (2)
o   Neither satisfied nor dissatisfied (3)
o   Somewhat satisfied (4)
o   Extremely satisfied (5)

Why? How could it be improved?_____

Did you access any state or utility efficiency incentives, such as the NJ Clean Energy program? Other incentives or discounts?

o   Yes (4)
o   No (5)
o   Not Sure (6)

If yes, which ones?_____

What percent of total project costs have EE program incentives covered?

o   0 - 30% (1)
o   31 - 70% (2)
o   71 - 100% (3)

What is your level of satisfaction with the amount of incentives? (On a scale of 1-5 from extremely dissatisfied to extremely satisfied).

- o Extremely dissatisfied (1)
- o Somewhat dissatisfied (2)
- o Neither satisfied nor dissatisfied (3)
- o Somewhat satisfied (4)
- o Extremely satisfied (5)

Why? What levels would be preferable?_____

What is your level of satisfaction with the <u>timing</u> of the incentive payments? (On a scale of 1-5 from extremely dissatisfied to extremely satisfied).

- o Extremely dissatisfied (1)
- o Somewhat dissatisfied (2)
- o Neither satisfied nor dissatisfied (3)
- o Somewhat satisfied (4)
- o Extremely satisfied (5)

How could this be improved? How well did the process synch (or did not) with capital budgeting process or approval cycle(s)?_____

If no ECMs were implemented, what were the reasons that the ECMs were not implemented?

 _____

Have you undertaken any EE improvements to your facilities outside of the LGEA program – e.g., new HVAC, water heating, lighting, etc.

- o Yes (3)
- o No (4)
- o I'm not sure (5)

If yes, when and what?_____

Have you worked with an Energy Service Company (ESCO)?

- o Yes (4)
- o No (5)
- o Not Sure (6)

If yes, which ones?_____

Do you have a Green Purchasing Policy?

- o Yes (7)
- o No (8)
- o Not Sure (9)

Was there a meeting(s) or follow up(s) after your entity received the audit report?

- o Yes (4)
- o No (5)
- o Not Sure (6)

If yes, who was involved / attended_____

Describe any other ongoing meetings or communication.

 _____

Have you consulted with any other schools/munis in the LGEA program to share or learn what works?

- o   Yes (1)
- o   No (2)
- o   Not Sure (3)

If yes, how did you hear about it? How helpful has it been?_____

What was your level of satisfaction with the closeout procedures? (On a scale of 1-5).

- o   Extremely dissatisfied (1)
- o   Somewhat dissatisfied (2)
- o   Neither satisfied nor dissatisfied (3)
- o   Somewhat satisfied (4)
- o   Extremely satisfied (5)

Why? How could they be improved?_____

What were the positives/benefits from participating in the program?_____

What were the negatives/challenges of participating in the program and what specifically would solve this for you?

 _____

Do you have any specific suggestions for how to improve the delivery of the LGEA program?_____

Is there anything else you'd like to share with us about participating in the LGEA program?_____

Thank you very much for taking the time to talk with us today. Your contribution is a very important part of the process. Do you mind if we follow-up with you if any additional questions arise?_____

Appendix B. Partial Participant Interview Guide

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of Planning and Public Policy

NJ Clean Energy Program's Local Government Energy Audit (LGEA)
Program Process Evaluation
Interview Guide – Partial Participants

Entity Type

- o   Municipality (1)
- o   School District (2)
- o   Independent Non-profit (3)
- o   Faith-based Organization (4)
- o   Other (5) _____

Thank you for taking the time to provide input about NJ's LGEA program. Rutgers Center for Green Building (RCGB) is conducting a Process Evaluation of the Local Government Energy Audit (LGEA) program, which is managed by TRC as part of the New Jersey Clean Energy Program (NJCEP).

Are you familiar with the LGEA program?

[If not] The LGEA program provides financial incentives to cover the cost of having an energy audit performed on eligible facilities owned by municipalities, school districts, 501(c)(3) non-profits, and other local and state government entities. The goal of the energy audit is to provide Applicants with information on how their facilities use energy, identify energy conservation measures (ECMs) that can reduce energy use, and put Applicants in a position to implement these ECMs and to guide Applicants towards appropriate NJCEP equipment incentive programs to receive financial incentives for implementing the ECMs.

Goal for this interview: • To gather information about your experience with the program, including successes and challenges you have had.

We expect this interview to take about 20-30 minutes. Do you have any questions for us before we begin?

How did [your organization] find out about the LGEA program?

- o   NJ Clean Energy Program Website (1)
- o   Colleagues/word of mouth (2)
- o   Social media (3)
- o   PSA (6)
- o   Conference/event (4)
- o   A manager asked me to work on the LGEA project for our organization. (7)
- o   Other: (5) _____

What was the motivation for participating in LGEA?

  _____

Who managed the process for [your organization]? _____

Please describe the steps you went through from your first contact with the program to when you decided not to participate further._____

What was your level of satisfaction with the forms and paperwork involved? (On a scale of 1-5 from extremely dissatisfied to extremely satisfied).

- o   Extremely dissatisfied (6)
- o   Somewhat dissatisfied (7)
- o   Neither satisfied nor dissatisfied (8)
- o   Somewhat satisfied (9)
- o   Extremely satisfied (10)

Why? What difficulties did you have with the paperwork? How could it be improved?_____

Did you have any issues supplying the data required on the application form?

  _____

Why did you ultimately decide not to participate in the LGEA program?

  _____

Was there anything that could have been done differently that would have changed the outcome?_____

What was your level of satisfaction in your interactions with TRC? (On a scale of 1-5 from extremely dissatisfied to extremely satisfied).

- o   Extremely dissatisfied (1)
- o   Somewhat dissatisfied (2)
- o   Neither satisfied nor dissatisfied (3)
- o   Somewhat satisfied (4)
- o   Extremely satisfied (5)

Why? How could it be improved?_____

Do you have separate electricity and gas providers?

- o   Yes (4)
- o   No (5)
- o   Not Sure (6)

How did that affect your ability to participate in the project?_____

Do you have a Green Purchasing Policy?

- o   Yes (7)
- o   No (8)
- o   Not Sure (9)

Have you undertaken any EE improvements to your facilities outside of the LGEA program – e.g., new HVAC, water heating, lighting, etc.

- o   Yes (3)
- o   No (4)
- o   I'm not sure (5)

If yes, when and what?_____

Did [your organization] participate in the Sustainable Jersey program?

o   Yes (4)
o   No (5)
o   Not Sure (6)

Did you use any resources fromSustainable Jersey – e.g., workshops/trainings?

o   Yes (4)
o   No (5)
o   Not Sure (6)

If yes, which ones?_____

Are there other resources you used to assist in the LGEA application process?

o   Yes (1)
o   No (2)
o   Not Sure (3)

If yes, which ones?_____

What kind of resources would help most?

_____

What were the positives/benefits from participating in the program?_____

What were the negatives/challenges of participating in the program and what specifically would solve this for you?

 _____

Is there anything else you'd like to share with us about participating in the LGEA program?_____

Thank you very much for taking the time to talk with us today. Your contribution is a very important part of the process. Do you mind if we follow-up with you if any additional questions arise?_____

Edward J. Bloustein School
of Planning and Public Policy

Appendix C. Program Administrator Interview Guide

Thank you for taking the time to talk with us today.
We expect this interview to take about 30-45 minutes.
Do you have any questions for us before we begin?

- Can you briefly describe your role in implementing the Local Government Energy Audit (LGEA) program?
- Please describe the various stakeholders that help deliver the program, as well as their roles.

Communication

- How do team members communicate? Is there an expected method or frequency in communication?

  Do you see any opportunities for improvement in the communication process?
- What are the staffing requirements for the LGEA program? How many? Types of staff?
- Do you have enough staff capacity and resources? In what areas could you use more support?
- How often do NJCEP and Utilities communicate about the program? About goals? About coordination? About specific participants?

Program Planning/Goals

- What are the primary goals for the Local Government Energy Audit program?
- How do you track progress towards these goals?
- Are there any other objectives, maybe softer or internal targets?
- How did the program do relative to its participation and savings goals, as well as any of these softer/internal targets, in FY2020, FY2021, and FY2022?
- The program transitioned between the NJCEP and Utilities in FY21. Can you describe what changes in the program occurred because of this transition.
- Looking ahead, can you tell me about any changes underway for future years?
- How do you track and manage program data?

Customer Participation & Experience

- What is your role in the participant application process? (skip to next section if no role)
- Can you discuss the types of eligible applicants?
- How do participants find out about the program?
- Do you use any particular databases or datasets to find and target potential participants? If so, what datasets? How about non-profits - 501cs?
- What happens after a customer contacts the program?
- How quickly are audits scheduled after an application is approved?
- What is the cancellation rate?
- When canceling, what are the common reasons that participants opt out?
- What is your role in the audit process? (skip to next section if no role)
- Can you briefly walk me through a typical audit?

Installations

- Are your familiar with projects where customers install measures? If not skip to next section.
- What are the most common measures recommended for installation?
- About what percent of audit participants act on the recommendation?
- What are some common reasons cited for not implementing recommendations? Do you have any ideas on how to increase implementation rates?
- For customers that do implement recommendations, what EE programs do they tend to participate in?
- What percent of customers work with ESCOs?

- Does the program help participants secure loans or other financing?
- What is the program's process for follow-up with participants that do not take action after their audit?
- Do you reach out to program participants after the audit to ask about questions or plans to participate?
- How long/often after audit do you reach out to participants?
- Are you familiar with projects that occurred with utility involvement? (if not skip to next section) Please describe what occurs after the audit report is passed on to the customer and they work with a utility?

Marketing

- Please describe the marketing and outreach activities deployed for this program.
- How effective do you think current marketing is?

Wrap-up

- Given your experience, what do you think prevents eligible customers from participating in the program?
- Given your experience, what do you think prevents program participants from implementing ECM's?
- What do you think is working particularly well in the LEGA program?
- What do you think should most be changed to make the LEGA program more effective?
- Is there anything you would like to tell us about the LEGA program that we have not asked about?

Thank you very much for taking the time to talk with us today. Your contribution is a very important part of the process. Do you mind if we follow-up with you if any additional questions arise?

Appendix D. ESCO Interview Guide

Thank you for taking the time to provide input about NJ's LGEA program. Rutgers Center for Green Building (RCGB) is conducting a Process Evaluation of the Local Government Energy Audit (LGEA) program, which is managed by TRC as part of the New Jersey Clean Energy Program (NJCEP).

As a New Jersey registered Energy Service Company (ESCO) or energy consultant, do you have experience working with clients who participated in the LGEA program and may have proceeded with an Energy Savings Improvement Program (ESIP)?

If so, we'll proceed with the interview.

Goals for this interview:

To gather information about your experience(s) with how the LGEA affected a subsequent ESIP program, including successes and challenges you have had. This may include your organization's role in any or a combination of the following activities:

- The conduct of the audit
- Use of the audit in the development of subsequent ESIP proposals or contracts, with an ESCO on behalf of the client agency,
- Other related activity.

We expect that you may have been involved in more than one ESIP project. If that is the case, please let us know that, and let us know if your response to a question reflects several projects or an "average" experience.

We expect this interview to take about 30 minutes. Do you have any questions for us before we begin?

By agreeing to continue you are representing that you have knowledge of your organization's activities in LGEA and ESIPs.

1. Have you participated in an ESIP or assisted a client agency in their development of an LGEA audit? How many?

2. What role or roles have you played? (check as many as apply)

☐ Energy consultant to an agency in the development of an LGEA
☐ Energy consultant to an agency in the administration of an ESIP
☐ Served as an ESCO for an ESIP
☐ Submitted an unsuccessful ESIP proposal based on an LGEA

3. Have you reviewed LGEA audit reports?

3a. If so, how satisfactory do you find audit reports in terms of usefulness?

- Not Satisfactory
- Somewhat Satisfactory
- Neutral
- Satisfactory
- Very Satisfactory

3b. How could they be improved? (speed of audit process, completeness, level of detail, types of ECM's recommended)

4. **If your involvement preceded completion of the LGEA**, please describe your involvement with the LGEA program audit team.
5. **If your involvement preceded completion of the LGEA**, did the client agency subsequently release an ESIP RFP?

5a. If yes, did your company submit a proposal? Who was awarded the contract?

The next questions are for organizations that serve as an energy consultant to an agency.

6. The implementation stage of the program transitioned from TRC to incumbent utility companies in FY22. If your projects were affected by the change, please describe how this transition affected the program?

7. Please describe the process that the agency used from the time the audit was received to completion of an ESIP, as appropriate to your engagement. Consider this in context of the following steps:
    1. *Initial meeting to review report*
    2. *Deciding what ECMs to install*
    3. *Financing decisions*
    4. *Installations of ECMs*
    5. *Follow up afterwards*

8. What do you perceive are challenges that customers face to participating in the LGEA program?

9. What reasons did customers provide for not installing measures?
10. Do you have suggestions for how to remedy these difficulties?

11. What is your overall satisfaction with the LGEA program, where audits were completed prior to July 1, 2021?
- Not Satisfied
- Somewhat Satisfied
- Neutral
- Satisfied
- Very Satisfied

Why?

12. What is your overall satisfaction with the LGEA program, where audits were completed after July 1, 2021?

o   Not Satisfied
o   Somewhat Satisfied
o   Neutral
o   Satisfied
o   Very Satisfied

Why?

The remaining question are for all survey participants

13. Do you have any suggestions for how to improve the LGEA program?

14. Is there anything else you'd like to share with us about the LGEA program?

Thank you very much for taking the time to talk with us today. Your contribution is a very important part of the process. Do you mind if we follow-up with you if any additional questions arise?

Appendix E. Utility Interview Guide

Thank you for taking the time to talk with us today.
We expect this interview to take about 30-45 minutes.
Do you have any questions for us before we begin?

Roles / Responsibilities:

1. Can you briefly describe your role in implementing the Local Government Energy Audit (LGEA) program?

2. Please describe the various stakeholders that help deliver the program, as well as
their roles.

Communication

3. How do team members communicate? Is there an expected method or frequency in communication?
Do you see any opportunities for improvement in the communication process?

4. What are the staffing requirements for the LGEA program? How many? Types of staff?

5. Do you have enough staff capacity and resources? In what areas could you use more support?

6. How often do NJCEP and Utilities communicate about the program? About goals? About coordination? About specific participants?

Program Planning/Goals

7. What are the primary goals for the Local Government Energy Audit program?

8. How do you track progress towards these goals?

9. Are there any other objectives, maybe softer or internal targets?

10. How did the program do relative to its participation and savings goals, as well as any of
these softer/internal targets, in FY2020, FY2021, and FY2022?

11. The program transitioned between the NJCEP and Utilities in FY21. Can you describe what changes in the program occurred because of this transition.

12. Looking ahead, can you tell me about any changes underway for future years?

13. How do you track and manage program data?

Customer Participation & Experience

14. Can you discuss the types of eligible applicants?

15. How do participants find out about the program?

16. Do you use any particular databases or datasets to find and target potential participants? If so, what datasets?
How about non-profits - 501cs?

Installations

17. Are you familiar with projects where customers install measures? If not skip to next section.

18. What are the most common measures recommended for installation?

19. About what percent of audit participants act on the recommendation?

20. What are some common reasons cited for not implementing recommendations? Do you have any ideas on how to increase implementation rates?

21. For customers that do implement recommendations, what EE programs do they tend to participate in?

22. What percent of customers work with ESCOs?

23. Does the program help participants secure loans or other financing?

24. What is the program's process for follow-up with participants that do not take action after their audit?

25. Do you reach out to program participants after the audit to ask about questions or plans to participate?

26. How long/often after audit do you reach out to participants?

27. Are you familiar with projects that occurred with utility involvement? (if not skip to next section) Please describe what occurs after the audit report is passed on to the customer and they work with a utility?

Marketing

28. Please describe the marketing and outreach activities deployed for this program.

29. How effective do you think current marketing is?

Wrap-up

30. Given your experience, what do you think prevents eligible customers from participating in the program?

31. Given your experience, what do you think prevents program participants from implementing ECM's?

32. What do you think is working particularly well in the LEGA program?

33. What do you think should most be changed to make the LEGA program more effective?

34. Is there anything you would like to tell us about the LEGA program that we have not asked about?

Thank you very much for taking the time to talk with us today. Your contribution is a very important part of the process. Do you mind if we follow-up with you if any additional questions arise?

Appendix F. LGEA Non-Participant Survey

Survey Title:

How Can We Make New Jersey Clean Energy Programs Work Better?

1. What is your organization type?

- o   Municipality (1)
- o   County/State Government (2)
- o   School (3)
- o   Religious Organization (4)
- o   501 (c)(3) Non-profit (5)
- o   Other (6) _____

Display This Question:

   If What is your organization type? = Municipality

   Or What is your organization type? = County/State Government

1a. What is your approximate resident population?

_____

Display This Question:

   If What is your organization type? = School

1b. What is your approximate student population?

_____

Display This Question:

   If What is your organization type? = Religious Organization

   Or What is your organization type? = 501 (c)(3) Non-profit

   Or What is your organization type? = Other

1c. What is the approximate size of the population your organization serves?

_____

Display This Question:

   If What is your organization type? = Municipality

   Or What is your organization type? = School

2. Does your organization participate in the Sustainable Jersey program?

- o   Yes (1)
- o   No (2)
- o   Unsure (3)

3. What is the approximate size of your staff (full-time)?_____

4. Approx. how many buildings/facilities does your organization maintain?_____

5. What is the approximate total square footage of all buildings/facilities in your organization?

- o Under 5,000 sq.ft. (1)
- o 5,000-25,000 sq.ft. (2)
- o 25,000-50,000 sq.ft. (3)
- o 50,000-100,000 sq.ft. (4)
- o Over 100,000 sq.ft. (5)
- o I'm not sure (6)

6. Does your organization employ or contract the following positions?

	Employ (1)	Contract (2)	Unsure (3)	Does not employ or contract this position (4)
Facilities Manager (1)	o	o	o	o
Property Manager (2)	o	o	o	o
Certified Energy Management (3)	o	o	o	o

7. Have you heard of any New Jersey Clean Energy Programs for local governments, schools and non-profits in the state?

- o Yes (1)
- o No (2)

Display This Question:

   If Have you heard of any New Jersey Clean Energy Programs for local governments, schools and non-pro... = Yes

7a. Can you tell me the names of any programs you know?

   _____

8. The NJ BPU **Local Government Energy Audit Program** subsidizes the cost of an engineering analysis to examine facilities energy use improvements and to identify cost-justified energy-efficiency measures for local government agencies, school districts, state contracting agencies, public agencies, state colleges and universities, and select non-profit agencies.
Prior to this survey, have you heard of NJ BPU's Local Government Energy Audit Program?

- o Yes (1)
- o No (2)

Display This Question:

   If The NJ BPU Local Government Energy Audit Program subsidizes the cost of an engineering analysis t... = Yes

8a. Where did you learn about the LGEA program?

- o Professional Association - If so, which one(s) (1) _____
- o Colleagues/Word of Mouth (7)
- o NJ Clean Energy Program website (2)

o   Social media / PSA (3)
o   Conference / event (4)
o   Sustainable Jersey (5)
o   Other (6) _____

Display This Question:

If The NJ BPU Local Government Energy Audit Program subsidizes the cost of an engineering analysis t... = Yes

8b. Has your organization participated in the LGEA program?

o   Yes (1)
o   No (2)
o   Maybe/Not sure (3)

Display This Question:

If The NJ BPU Local Government Energy Audit Program subsidizes the cost of an engineering analysis t... = Yes

And Has your organization participated in the LGEA program? = No

8c. Why has your organization not participated in the LGEA program yet?

o   Not enough time or staff capacity to complete the program entry application (1)
o   Not enough support/interest from upper management/administration (2)
o   Energy savings projects are not a budget priority (3)
o   I don't think that our organization meets program eligibility requirements (4)
o   We have already done an energy audit (7)
o   I don't think the an energy audit will be helpful (8)
o   I am unsure (5)
o   Other reason (6) _____

14. Do you have a Green Purchasing Policy?
 Yes (1)
o   No (2)
o   Unsure (3)

15. Are there any solar energy installations on your facility(ies)/building(s)?

o   Yes (1)
o   No (2)
o   Unsure (3)

16. Is there anything else you'd like to tell us about the **challenges of participating** in New Jersey Clean Energy and Energy Savings programs?_____

17. Is there anything else you'd like to tell us about your **awareness, interest or ability to participate** in New Jersey Clean Energy and Energy Savings programs?_____

9. How does your organization gather information about energy efficiency and available programs and incentives?

o   Professional Association - If so, which one(s) (4) _____
o   Colleagues/Word of Mouth (10)
o   NJ Clean Energy Program website (5)

o   Social media / PSA (6)
o   Conference / event (7)
o   Sustainable Jersey (8)
o   Other (9) _____

10. Have you undertaken any energy savings projects over the past five years?

o   Yes (1)
o   No (2)
o   Unsure (3)

Display This Question:

   If Have you undertaken any energy savings projects over the past five years? = Yes

10a. What type of project(s)?

o   Lighting replacement (1)
o   Other lighting savings (2)
o   HVAC System upgrade (3)
o   HVAC System replacement (4)
o   Water saving measures (5)
o   Solar panel installation (6)
o   Window/door replacement (7)
o   Improved or replaced insulation (8)
o   Other (9) _____

Display This Question:

   If Have you undertaken any energy savings projects over the past five years? = Yes

10b. How did you fund the energy saving measures? (check all that apply)

o   NJ Clean Energy Program incentives (1)
o   Utility program incentives (2)
o   Operating budget (3)
o   Capital budget (4)
o   Special assessment (5)
o   Grants (6)
o   Other (7) _____
o   Unsure (8)

Display This Question:

   If How did you fund the energy saving measures?(check all that apply) = NJ Clean Energy Program incentives

10c. Which NJ Clean Energy Program incentives?_____

Display This Question:

   If How did you fund the energy saving measures?(check all that apply) = Utility program incentives

10d. Which Utility program incentives?_____

11. Are you planning to undertake any energy savings projects over the next five years?

o   Yes (1)
o   No (2)
o   Unsure (3)

Display This Question:

If Are you planning to undertake any energy savings projects over the next five years? = Yes

11a What type of project(s) are you planning?

o   Lighting replacement (1)
o   Other lighting savings (2)
o   HVAC System upgrade (3)
o   HVAC System replacement (4)
o   Water saving measures (5)
o   Solar panel installation (6)
o   Window/door replacement (7)
o   Improved or replaced insulation (8)
o   Other (9) _____

Display This Question:

If Are you planning to undertake any energy savings projects over the next five years? = Yes

11b. How will you fund the energy saving measures?(check all that apply)

o   NJ Clean Energy Program incentives (1)
o   Utility program incentives (2)
o   Operating budget (3)
o   Capital budget (4)
o   Special assessment (5)
o   Grants (6)
o   Other (7) _____
o   Unsure (8)

12. How likely is your organization to apply to participate in the LGEA program in the near future?

o   Very unlikely (1)
o   Somewhat unlikely (2)
o   Neutral/Not sure (3)
o   Somewhat likely (4)
o   Very likely (5)

13. How important are each of the following in making it more likely that your organization would participate in the LGEA program? (Check all that apply)

	Not at all important (1)	Slightly important (2)	Moderately important (3)	Very important (4)	Extremely important (5)
Assistance with completing	o	o	o	o	o

the application (1)					
Assistance obtaining energy bills from utility (2)	o	o	o	o	o
Alignment with our budgeting cycle (3)	o	o	o	o	o
More information about costs/benefits upfront (4)	o	o	o	o	o
Timely turnaround of audit report (5)	o	o	o	o	o
Ability to obtain incentives/funding after the audit to implement measures (6)	o	o	o	o	o
More support of upper management/ administration (7)	o	o	o	o	o
Other (8)	o	o	o	o	o

Appendix G. Materials Review Summary

A thorough review of the audit reports and presentations was completed. The reports were consistent, informative, and easy to read. They all contained in-depth information about the audited buildings and their baseline energy usage, recommendations about potential ECMs to install and anticipated savings, and Energy Benchmarking scores. It was noted that a few months after the program transition, the reports no longer contained information about possible incentives and payback periods. A recommendation is to work with utilities to bring this useful information back into the reports.

The TRC compliance filings did not contain specific savings or participation goals for the LGEA program, as noted in the recommendations section. Instead, the compliance filings have Outreach team goals that include the LGEA program, such as number of meetings attended or phone calls fielded.

The marketing brochures and program website were clear and easy to understand, with all relevant program information included. The brochures noted eligibility requirements but did not make it clear post-transition (FY22) that the participants would need to work with their utility to receive program incentives. The website had applications available, as well as a spreadsheet to track the needed 14 months of energy bills, case studies, previous audit reports, and program participants. The website also had a form that participants could complete to allow TRC to work with the utilities to receive billing and usage data, which should ease some participation burdens.

The program application is short and easy to complete. The accompanying workbook is much more detailed and requires a deep knowledge of the buildings to be audited. The applicants are expected to complete information regarding age, square footage, hours of use, existence of certain appliances, in addition to the required utility billing and usage data. The difficulty of completing this workbook was noted by some interviewees. The ability of TRC to work directly with the utilities to get relevant data, as noted above, will simplify the application process.

 A review of Sustainable Jersey materials included data available through the Sustainable Jersey Data Center which provides information about which municipalities participated in the LGEA program. The data provided only goes through 2021 and does not cover the full period of the LGEA process evaluation. In addition, CUPR communicated with Sustainable Jersey staff regarding their interface with the LGEA Program

Appendix H. Sample Analysis Tables

Comparison of Sample Characteristics to NJ State – Schools and Municipalities

SCHOOLS

1. **Revenue and Participation**

Summary

Participation	Mean	Std. dev.	Freq.
Rest of New Jersey	248,300,000	401,300,000	520
Sample	391,800,000	660,900,000	22
Total	254,100,000	415,000,000	542

Analysis of Variance

Source	SS	df	MS	F	Prob > F
Between groups	434,280,000	1	434,280,000	2.53	0.1124
Within groups	92,745,000,000	540	171,750,000		
Total	93,180,000,000	541	172,240,000		

2. Enrollment and Participation

Table 1: Summary of Enrollment

Participation	Mean	Std. dev.	Freq.
Rest of New Jersey	2,602.9962	4,279.3612	520
Sample	4,221.6818	7,430.3905	22
Total	2,668.6993	4,451.2434	542

Table 2: Analysis of Variance

Source	SS	df	MS	F	Prob > F
Between groups	55,303,393.2	1	55,303,393.2	2.80	0.0948
Within groups	10,664,000,000	540	19,747,845.5		
Total	10,719,000,000	541	19,813,567.4		

Table 3: Comparison of Enrollment by Participation (Bonferroni)

Row Mean-Col Mean	1
0	1,618.69
	0.095

3.Appropriations and Participation

Table 1: Summary of Appropriations

Participation	Mean	Std. dev.	Freq.
0	263,600,000	404,700,000	520
1	404,600,000	635,400,000	22
Total	269,300,000	416,600,000	542

Table 2: Analysis of Variance

Source	SS	df	MS	F	Prob > F
Between groups	419,760,000	1	419,760,000	2.43	0.1200
Within groups	93,461,000,000	540	173,080,000		
Total	93,880,000,000	541	173,530,000		

Table 3: Comparison of Appropriations by Participation (Bonferroni)

Row Mean-Col Mean	0
1	140,000,000
	0.120

4.Normalized Revenue and Participation

Table 1: Summary of normrev

Participation	Mean	Std. dev.	Freq.
0	17,388.182	82,703.299	520
1	14,828.927	3,983.1442	22
Total	17,284.301	81,009.642	542

Table 2: Analysis of Variance

Source	SS	df	MS	F	Prob > F
Between groups	138,246,372	1	138,246,372	0.02	0.8848
Within groups	3,550,200,000,000	540	6,574,500,000		
Total	3,550,300,000,000	541	6,562,600,000		

Table 3: Comparison of normrev by Participation (Bonferroni)

Row Mean-Col Mean	1

0	-2,559.25	
	0.885	

5. Percentage Minority Population and Participation

Table 1: Summary of permin

Participation	Mean	Std. dev.	Freq.
0	0.2435403	0.18017066	520
1	0.27487216	0.18527749	22
Total	0.24481207	0.18031142	542

Table 2: Analysis of Variance

Source	SS	df	MS	F	Prob > F
Between groups	0.020720452	1	0.020720452	0.64	0.4252
Within groups	17.5683843	540	0.032534045		
Total	17.5891047	541	0.032512208		

Table 3: Comparison of permin by Participation (Bonferroni)

Row Mean-Col Mean	1
0	0.031332
	0.425

6. Population Density and Participation

Table 1: Summary of Population_Density__Per_Sq__Mil

Participation	Mean	Std. dev.	Freq.
0	3446.5679	5453.0308	520
1	6225.5077	11214.972	22
Total	3559.3662	5806.0194	542

Source	SS	df	MS	F	Prob > F
Between groups	162,999,025	1	162,999,025	4.87	0.0277
Within groups	1.8074e+10	540	33,470,436.5		
Total	1.8237e+10	541	33,709,860.9		

T

Table 3: Comparison of Population_Density__Per_Sq__Mil by Participation (Bonferroni)

Row Mean-Col Mean	1
0	2,778.94
	0.028

MUNICIPALITIES

1. **Revenue 2020 and Participation**

Table 1: Summary of Total Revenue 2020 by Participation

Participation	Mean Total Revenue 2020	Std. Dev.	Frequency
0	$26,525,942	$49,321,496	486
1	$74,992,918	$118,700,000	36
Total	$29,868,492	$57,990,925	522

Table 2: Analysis of Variance

Source	SS (Sum of Squares)	df (Degrees of Freedom)	MS (Mean Square)	F (F-Statistic)	Prob > F
Between groups	7.8734e+16	1	7.8734e+16	24.47	0.0000
Within groups	1.6734e+18	520	3.2180e+15		
Total	1.7521e+18	521	3.3629e+15		

Table 3: Comparison of Total Revenue 2020 by Participation (Bonferroni)

	0
1	$48,000,000
p-value	0.000

Top of Form

2. **Revenue 2021 and Participation**

Table 1: Summary of Total Estimated Revenue 2021 by Participation

Participation	Mean Total Estimated Revenue 2021	Std. Dev.	Frequency
0	$26,810,056	$51,936,946	485

| 1 | $75,527,544 | $115,300,000 | 36 |
| Total | $30,176,332 | $59,653,800 | 521 |

Table 2: Analysis of Variance for Total Estimated Revenue 2021

Source	SS (Sum of Squares)	df (Degrees of Freedom)	MS (Mean Square)	F (F-Statistic)	Prob > F
Between groups	7.9538e+16	1	7.9538e+16	23.31	0.0000
Within groups	1.7709e+18	519	3.4122e+15		
Total	1.8505e+18	520	3.5586e+15		

Table 3: Comparison of Total Estimated Revenue 2021 by Participation (Bonferroni)

	0
1	$49,000,000
p-value	0.000

3. Population and Participation

Table 1: Summary of Population (2020 Census) by Participation

Participation	Mean Population (2020 Census)	Std. Dev.	Frequency
0	15,068.52	22,564.88	524
1	33,977.73	51,689.9	41
Total	16,440.7	26,186.99	565

Table 2: Analysis of Variance for Population (2020 Census)

Source	SS (Sum of Squares)	df (Degrees of Freedom)	MS (Mean Square)	F (F-Statistic)	Prob > F
Between groups	1.3596e+10	1	1.3596e+10	20.51	0.0000
Within groups	3.7317e+11	563	662827115		
Total	3.8677e+11	564	685758393		

Table 3: Comparison of Population (2020 Census) by Participation (Bonferroni)

	0
1	18,909
p-value	0.000

4. Population Density and Participation

Table 1: Summary of Population Density by Participation

Participation	Mean Population Density	Std. Dev.	Frequency
0	3,447.159	5,411.037	524
1	5,577.233	8,988.35	41
Total	3,601.731	5,760.779	565

Table 2: Analysis of Variance for Population Density

Source	SS (Sum of Squares)	df (Degrees of Freedom)	MS (Mean Square)	F (F-Statistic)	Prob > F
Between groups	172,526,578	1	172,526,578	5.24	0.0225
Within groups	1.8545e+10	563	32,939,080.2		
Total	1.8717e+10	564	33,186,575.7		

Table 3: Comparison of Population Density by Participation (Bonferroni)

	0
1	2,130.1
p-value	0.022

Table 1: Summary of "norrev" by Participation

Participation	Mean "norrev"	Std. Dev.	Frequency
0	2,642.698	5,391.657	486
1	2,532.2116	2,046.455	36
Total	2,635.0783	5,229.0936	522

Table 2: Analysis of Variance for "norrev"

Source	SS (Sum of Squares)	df (Degrees of Freedom)	MS (Mean Square)	F (F-Statistic)	Prob > F
Between groups	409,153.117	1	409,153.117	0.01	0.9028
Within groups	1.4246e+10	520	27,395,216.5		
Total	1.4246e+10	521	27,343,419.8		

Table 3: Comparison of "norrev" by Participation (Bonferroni)

	0
1	-110.486

| p-value | 0.903 |

Appendix I. Participant Interview Results

Q72 - Entity Type
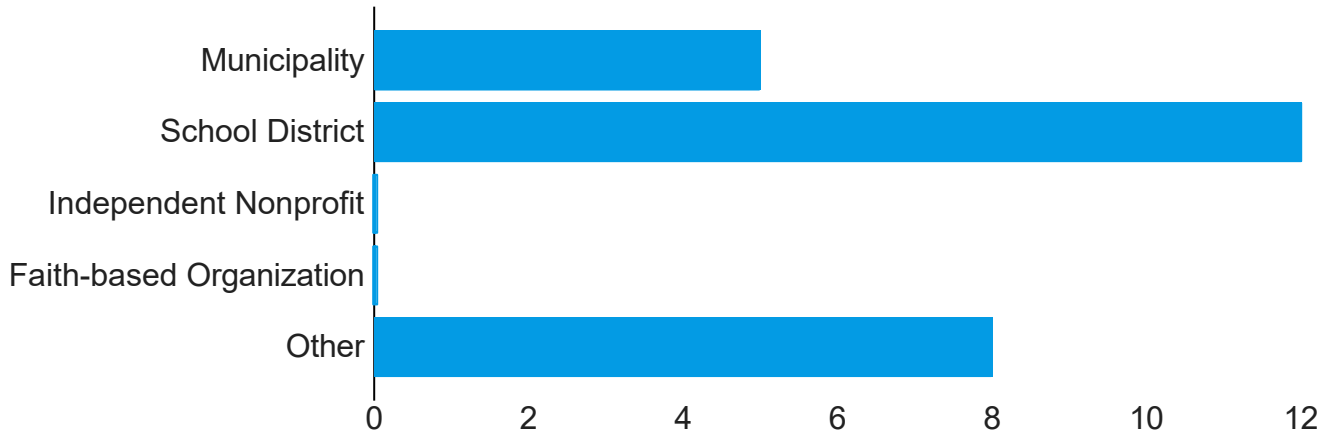
Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Entity Type - Selected Choice	1	5	3		2	3 25

Field	Choice Count
Municipality	5
School District	12
Independent Nonprofit	0
Faith-based Organization	0
Other	8
Total	25

Other - Text
NJ Transit
MUA
Redevelopment Authority
State Agency
County Bridge Commission

Q2 - Interviewee Name:

Interviewee Name:

Erin Hill

Christopher Mobley

Gilbert Moore

Tom Larocco and Josh Palombo

Greg Burns and Michael Thulen

Zuzana Karas

Christopher Villa

Christopher Villa

Robert Bianchini

Frank Bolognini

Greg Manzoni

Jim Rutala

Elizabeth Daley, Thomas Meehan and Jane Fontana

Ed Billings

Scott Wheeler

Q3 - Interviewee Title:

Interviewee Title:

Energy and Sustainability Specialist

Deputy Director of Planning

Larocco - Chief Engineer
Palombo, Waste Water Program Engineer

DCO (Thulen was former ESIP Coordinator)

Sustainability Director

Q5 - Interviewed by:

Interviewed by:

Jennifer Souder

Jennifer Souder
Karen Lowrie

Karen Lowrie

Karen Lowrie

Jennifer Souder

Jennifer Souder

Jennifer Souder

Tim Van Epp

Jaci

Q6 - Interview Duration:

Interview Duration:

35 min

15 minutes

35 minutes

Q8 - How did the participant entity find out about the LGEA program?
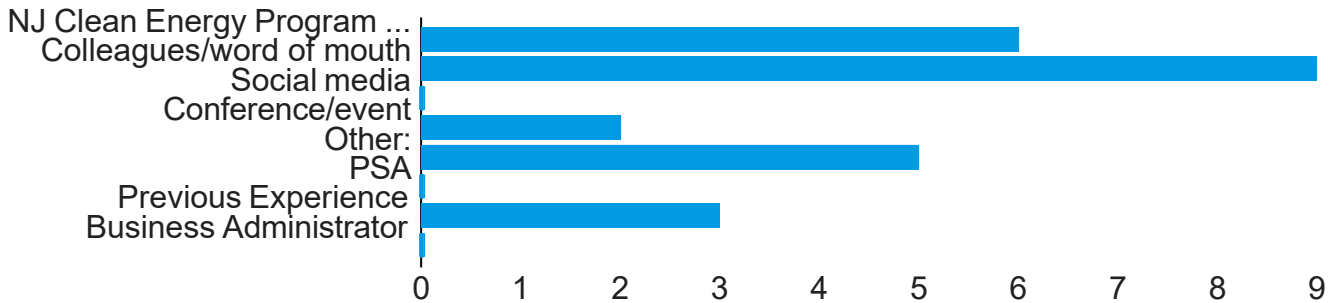
Field	Min	Max	Mean	Standard Deviation	Variance	Responses
How did the participant entity find out about the LGEA program? - Selected Choice	1	7	3	2	4	25

Field	Choice Count
NJ Clean Energy Program Website	6
Colleagues/word of mouth	9
Social media	0
Conference/event	2
Other:	5
PSA	0
Previous Experience	3
Business Administrator	0
Total	25

Other: - Text

Sustainable Jersey Intern

Prior presentation by BPU

Knew from previous experience

Personal relationship with school Superintendent who told him

Former business admin – chris mullons heard about it from BA group. – had just finished up last school with referendum – had updated all HVAC, windows and doors and they were looking to see what they could do. First summer of Covid - started audits

Q66 - Topics
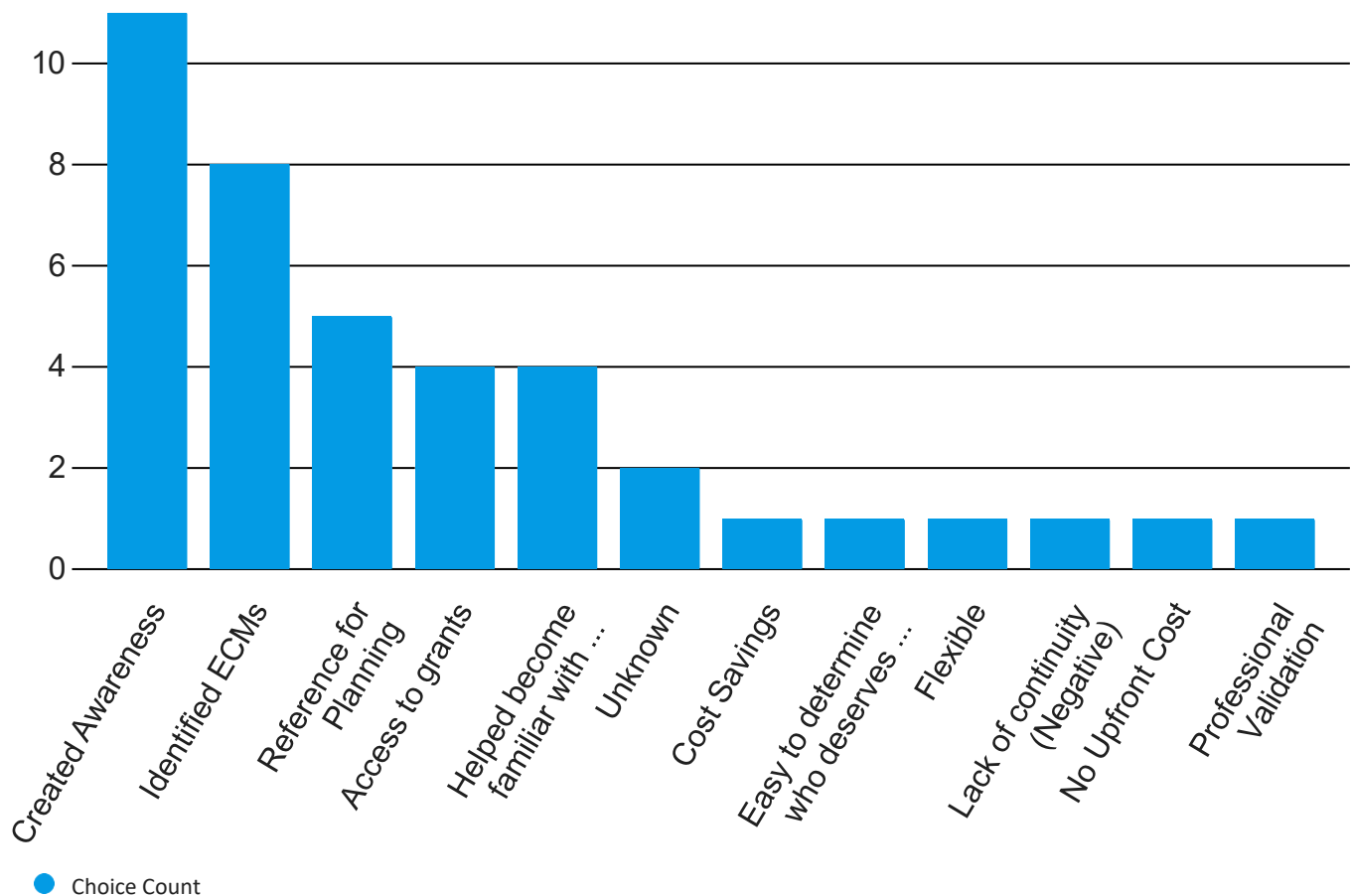
Choice Count

Q66 - What were the positives/benefits from participating in the program?

What were the positives/benefits from participating in the program?

Gives NJ Transit great overview of facilities and assets – particularly the ones with high energy use. Great starting point and great tool to engage with facilities' staff and let them know programs are available and that Erin's team available. Categorizing assets in general has been a great tool for NJ Transit.

Certainly provided some info about energy consumption and set them up to be able to make such changes. Big takeaway for Chris - they didn't know about the program and only found out about it because SJ intern told Chris about it- so would be good to have more widespread marketing and communications.

Main kickstart for master planning

Gave field personnel an assignment to take a hard look at facilities. Personnel learned by this

Small amount of useful information

Audit report received

Better understanding of the equipment. Used as their own benchmark since they had just finished up improvements through referendum.

Reports are a positive because he has them for reference and can use them for construction meetings- has used them to locate the equipment and facilities layout – very useful – can help to apply for grants. Trying to get looped in with JCPL and one of their incentives programs.

You don't realize how energy inefficient existing facilities are on the day to day. Better understanding of how little things/changes add up to savings … also opportunities to save on "man hours" (example of less time changing light bulbs if longer lasting lightbulbs).

Able to see where we could actually save some money on energy efficiency.

He surmises that the benefits will be that the audit will help the district learn about what upgrades are needed, will suggest areas to improve efficiency and comfort

LGEA is generous. LGEA is great to get towns to focus on energy efficiency, coupled with programs to incentivize them to act and act proactively rather than responding to emergencies.

Great reasons for it to exist – would not want it to go away.

TRC was good and flexible. BPU was very responsive. The audit report was very helpful with good information on energy usage and a useful menu of options for conservation. Because CRDA was going into an ESIP, the menu was not relevant, but it is useful for another entity that wants a good list of ECM's.

Helped district admin to see how they could be more energy-efficient and cost-effective if certain equipment was replaced; report graphics and pictures helped make the case

No opinion since there apparently was a lack of continuity between the BA's office and him regarding the program.

The program showed the possible ECMs.

Identified needed ECMs; met the prerequisite for entry to the ESIP program.

The LGEA audits: (1) forced him to get familiar with their facilities energy infrastructure and usage; (2) exposed some energy management weaknesses; (3) forced coordination between him and individual facility managers; and (4) made them aware of and eligible for other incentives.

Free consulting for conducting the audit.

Gave them a lot of great information – even though not implemented, Ben has the audit report as sustainability coordinator so he can refer to it for future efforts. CFO and facilities director has access to it. Lots of fantastic data. The presentation was helpful.

it was an eye opener for the trustees. The church building is old, as is the equipment and it needs to be replaced soon. The fact that it is in writing will help the trustees to plan for it.

Q9 - What was the motivation for participating in LGEA? Prompts (if needed): - Save money for the muni/school district/org - Conserve energy/reduce GHG emissions - Directive from City Council/Board/Manager, etc. - Sustainable Jersey Certification

What was the motivation for participating in LGEA?

Prompts (if needed):
- Save money for the muni/school district/org
- Conserve energy/reduce GHG emissions
- Directive from City Council/Board/Manager, etc.
- Sustainable Jersey Certification

have a lot of facilities and energy consumption – pretty unique transport facilities- great first step in understanding energy consumption. Started with ones with most useage. first step in more EE and sustainable approaches

1. It seemed like it could provide valuable information to the City.
2. There was no upfront cost.
3. We are involved with Sustainable Jersey, and we had a person from Sustainable Jersey assisting us, so we decided to move forward.

Money savings
Updating buildings as much as possible – make as EE as possible. Buildings are very old. Perfect way to

get grants and savings, and also update buildings in accordance with long-term facilities plan in a cost-

effective way.

update

Goal to develop an Energy Masterplan for 20 years. This is a kickstart to that development
It is free to do it.

Get a perspective of how to make some quick/easy fixes.

To go through ESIP. That is the ONLY reason to do it.
The other rebates are available without doing LGEA.

SAVE MONEY FOR THE MUNI/SCHOOL DISTRICT/ORG
CONSERVE ENERGY / REDUCE GHG EMISSIONS
MODERNIZE OLD BUILDINGS

To see if anything left to address after the huge
renovation of the referendum – still a few older roof
top units and kitchens that could be updated. Having
the extra knowledge for applying for grants etc. and
opportunities to expand the energy program.

Save money, conserve energy, reduce GHG emissions

See what we could do / how much we could improve
savings / reduce energy use. Everyone knows not very

To get money for energy efficiency projects

efficient currently and better technology available and
this program can help.

Q10 - Who managed the process for the participant entity? Prompts (if needed): - Facilities manager - DPW - City Manager / Superintendent / Principal - Green Team

Who managed the process for the participant entity?

Prompts (if needed):

- Facilities manager

- DPW

- City Manager / Superintendent / Principal

- Green Team

Erin Hill, Energy& Sustainability Specialist
Business Administrator and Chris Mobley
Facilities Manager
Josh Palumbo, Wastewater Program Engineer
Business Administrator
TOWNSHIP CFO AND SUSTAINABILITY DIRECTOR
Christopher Villa and BA
Former Director - Adam Nasr
Robert Bianchini
Former BA

Q11 - Was there a designated point of contact at [the participant entity] to work with LGEA Program staff?

Was there a designated point of contact at [the participant entity] to work with LGEA Program staff?

yes. Erin Hill and Sarah (key person at BPU) going through each application
Yes - Chris Mobley
Gilbert Moore was initial contact. Someone else is now involved with implementation (will send names).

Josh Palumbo, Wastewater Program

Greg Burns (DCO) as consultant

TOWNSHIP CFO

Christopher Villa

Adam Nasr (former Director at MARS, current at Middletown)

Yes

Yes, Frank Bolognini

Not sure, probably Alfredo Aguilar

Jim Rutala

Tom Meehan

Jennifer Giordano, School Superintendant?

The school district's Business Administrator, Jason Bedell, managed the whole LGEA process, except Scott Wheeler, Supervisor of Buildings and Grounds, escorted the LGEA Auditor around the buildings.

Yes, him, School Business Administrator/Board Secretary.

Him - Manager of Energy Initiatives Unit

Q12 - What was your level of satisfaction with the forms and paperwork involved? (On a scale of 1-5 from extremely dissatisfied to extremely satisfied).

Field	Min	Max	Mean	Standard Deviation	Variance	Responses
What was your level of satisfaction with the forms and paperwork involved? (On a scale of 1-5 from extremely dissatisfied to extremely satisfied).	6	10	9	1	1	18

Field	Choice Count
Extremely dissatisfied	2
Somewhat dissatisfied	1
Neither satisfied nor dissatisfied	4
Somewhat satisfied	7
Extremely satisfied	4
Total	18

Q13 - Why? How could it be improved?

Why? How could it be improved?
The application process is pretty clear and straightforward – seamless
not difficult
Should have been more descriptive.
4.5 – very satisfied. A lot of work but very self-explanatory – tedious because MUA has a lot of accounts.
Excessive for school districts

Q14 - Did you have any issues supplying the data required on the application form? Prompt:the energy consumption data?

Did you have any issues supplying the data required on the application form?

Prompt:the energy consumption data?

getting the info on NJ transit side more challenging (pre-audit questionnaire Is good new step) best for me (Erin) to call the folks on the site (of each NJ transit facility) and fill it out with them. Coordinating from different sites took time but sending it over was fine. The file size didn't get too large - could be an issue if files got too large. The past application, Sarah and Erin set up a shared folder because they submitted a lot of drawings.

Yes. Getting the data was a challenge. No one there had the time to go and get it. The Sustainable Jersey Intern did it. If didn't have an intern, probably wouldn't have gotten done.

Difficult if you don't know what you're doing and don't have information. Filled it out and things were missing. (Remembers contacting Akhil? and Howard to discuss back and forth). Need dedicated person that knows about energy and facility information. (JC uses vendors for a lot of this work. Had to hire consultant – CHI - to find the information.)

No – needed some back and forth, but communications were very clear.

Yes. Because of a lot of turnover in districts, it can be hard to find utility bills. Even with utilities helping, it can take a couple of months to find the information. Finding each piece of information for each building can be difficult. Hard to input the information in the Excel sheet.

Q15 - What was your level of satisfaction with the program entry/joining requirements? (On a scale of 1-5 from extremely dissatisfied to extremely satisfied).
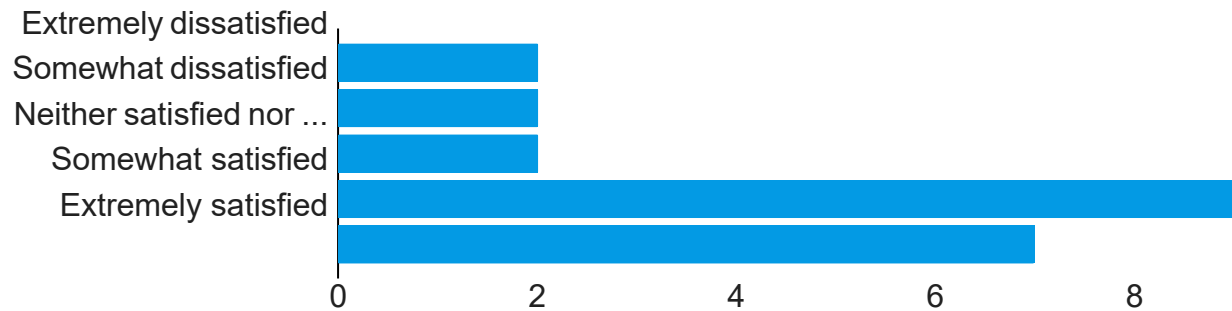
Field	Min	Max	Mean	Standard Deviation	Variance	Responses
What was your level of satisfaction with the program entry/joining requirements? (On a scale of 1-5 from extremely dissatisfied to extremely satisfied).	1	5	4	1	2	22

Field	Choice Count
Extremely dissatisfied	2
Somewhat dissatisfied	2
Neither satisfied nor dissatisfied	2
Somewhat satisfied	9
Extremely satisfied	7
Total	22

Q16 - Why? How could it be improved?

Why? How could it be improved?

Requirements re usage etc. were fine- larger facilities – more bang for the buck – worthwhile for larger facilities.

Nothing stood out. Not an issue.

A lot of districts don't have facilities managers or someone with the knowledge necessary to complete the application.

A video or a Q and A might help for the districts with limited capacity or knowledge about the many energy-related facilities and use.

4,5

Could be improved if TRC were staffed to the extent that they could help districts

Inputting the information could be made easier – web-based submission. Would be good to have BPU fill in the information. Take the responsibility off the districts to find the information.

Software…Utilities or BPU provide the 14 months of bills.

TRC will not come out until every bill is accounted for!

Q17 - Did you use any resources from Sustainable Jersey – e.g., workshops/trainings?

Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Did you use any resources from Sustainable Jersey – e.g., workshops/trainings?	4	6	5	0	0	24

Field	Choice Count
Yes	2
No	18
Not Sure	4
Total	24

Q18 - If yes, which ones?

If yes, which ones?
Sustainable Jersey Intern (energy)
No. He made contacts there. Tracy Woods and a few others – he presented at the business admin conf last year about Hazlet and what they have done on Energy end on a panel – the contacts and resources gained as he was working to expand the solar – future steps.
Attends SJ Summit, in general
BA left district

Q19 - Did [the participant entity] participate in the Sustainable Jersey program?
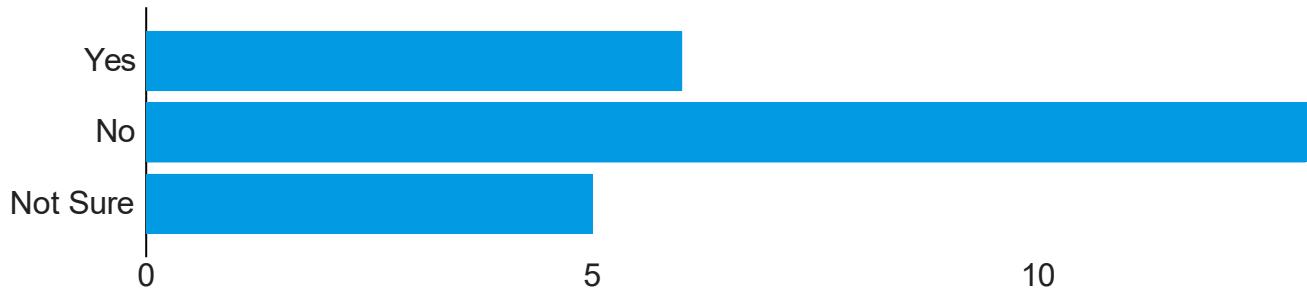
Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Did [the participant entity] participate in the Sustainable Jersey program?	4	6	5	1	0	24

Field	Choice Count
Yes	6
No	13
Not Sure	5
Total	24

Q20 - If yes, did (muni/school) submit for the applicable Sustainable Jersey actions (e.g EE for municipal facilities/school facilities)? Points earned?

If yes, did (muni/school) submit for the applicable Sustainable Jersey actions (e.g EE for municipal facilities/school facilities)? Points earned?

not asked.

The point system does not relate to the ESCO system. No points for energy audits. SJ doesn't call it an LGEA or ESIP, so it doesn't match up.

Doesn't qualify
not sure
It could benefit communities to use SJ, as a lot about energy is "foreign" to them.
Yes, they are almost at Silver level certification
BA left district
Not applicable
Not applicable

Q21 - Are there other resources you utilized to assist in the process of either the LGEA audit or implementation of its recommendations?
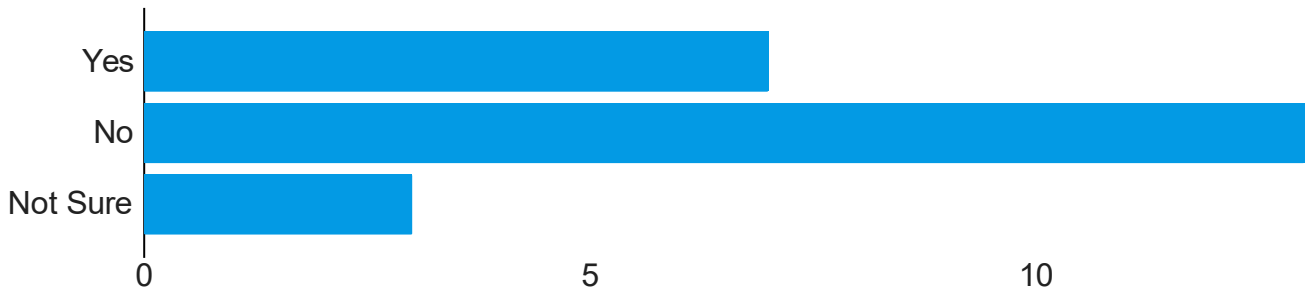
Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Are there other resources you utilized to assist in the process of either the LGEA audit or implementation of its recommendations?	1	3	2	1	0	2

Field	Choice Count
Yes	7
No	13

Not Sure	3
Total	23

Q22 - If yes, which ones?

If yes, which ones?
Used their Utility software platform. During implementation – participated in the large energy users program (P4P) – consultant team helped them implement- more M&V. Investigating what the utilities offer now and they are meeting with them.
Dealing with the City DPW on remediation of drinking water through grants/partnership
Might have checked a few things on NJ Clean Energy website after receiving report but not really
Utilities have gotten better about helping. Easier to get data now that it's online.
Outsourced equipment-specific training vis-a-vis replacement assessment
BA left district
Not applicable
Not for LGEA, but they are being supported by their ESCO, Honeywell, as well as the School District's Arhitect and their subconsultants. Honeywell has not yet identied an installation contractor, but is advising on NJCEP incentives.
Yes, their outsourced bill paying service, Energy Solve (subsidiaray of Avid Exchange).
Called PSEG for data.

Q23 - What kind of resources would help most?

What kind of resources would help most?
Nothing jumps out.
Used all internal resources. Nobody knew us better than us.
It would help if they didn't require LGEA for an ESIP!
Bringing back the 5 auditors who serve to hold the hand of the district through it.
Would help if an ESCO or architect/engineer takes them through it.
Jackson has some type of special program that was helpful.
GRANT FUNDING TO IMPLEMENT RECOMMENDATIONS

There are so many programs; doesn't know which one to go with, so maybe could use someone to explain all of the programs.

More focus on implementation and a better understanding of what the options are.
Need a way to resolve the bidding issue on Direct Install - a better process would make it easier to procure vendors.

Grants information relative to long-term maintenance and equipment replacement planning

BA left district

Not applicable

None

Access to ECM contractors that have been retained through State public fair and open procurement procresses. There is pressure from the State Attorney General and Department of Community Affairs for them not to use the contractors that either TRC or the utilities have retained to implement ECMs. Therefore, they use the ESIP program and ESCOs to install ECMs, taking advantage of NJCEP cash incentivves, Pay for Performance.
Also, they would like to have more information on Federal incentive programs.

Nothing else needed

It was pretty smooth -can't think of any other resources in particular. A little challenge getting data from pseg. TRC was very professional and on time.

None

Q24 - Please describe the steps you go through from your first contact with the program, through the audit (if applicable), and implementation (if applicable).

Please describe the steps you go through from your first contact with the program, through the audit (if applicable), and implementation (if applicable).

2 applications (FY 20 and FY 22) – 8 facilities – still in process and evaluating whether they go with the large energy use or direct install with these rounds of audits. For previous, they were in middle of 2 rounds of large energy users programs and that was directly from previous audit findings. They were doing large lighting program. How can they take advantage of not just lighting?

Intern told chris about it and he talked to BA about it and then they filled out application. Have not implemented the ESIP. When they finished the program they determined they should do a joint ESIP with Orange school district - had one meeting with school about it and now waiting on Board of Ed to complete their audit.

Clarification from Chris through follow up email:
As for the Orange Board of Education (OBOE), when we met with them, they had not yet completed their audit. We were going to meet again when the audit was complete and they had received their reports. We will be following up with the OBOE in August.

Dr. Moore left the position and someone else, Mr. Agusto, followed the program through the audit process and report. Asked to interview him with no response.

Q25 - Did you review the audit report?
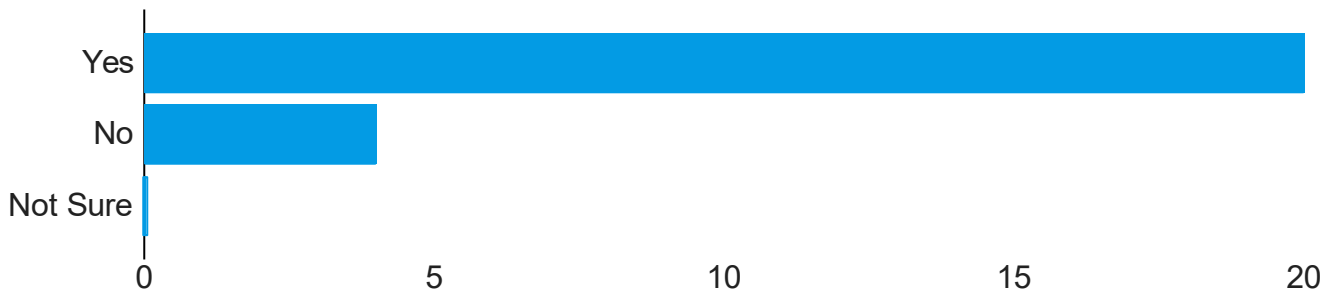
Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Did you review the audit report?	4	5	4	0	0	24

Field	Choice Count
Yes	20
No	4
Not Sure	0
Total	24

Q26 - Did you find the presentation of the audit results and recommendations:
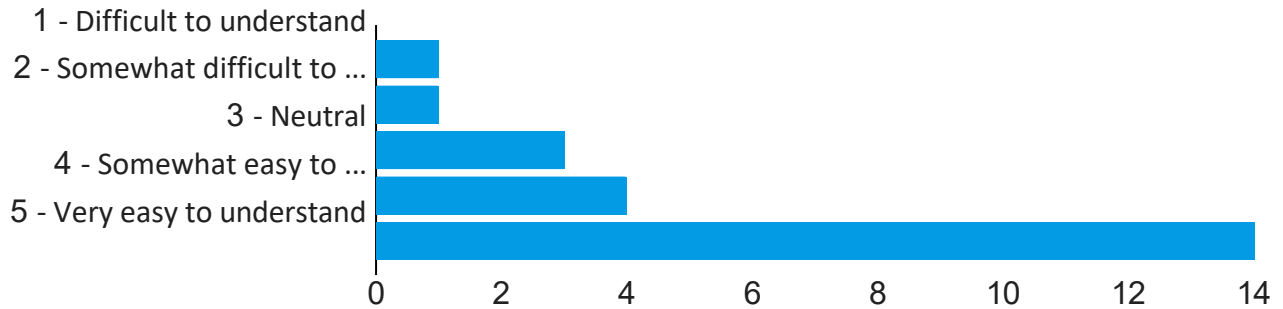
Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Did you find the presentation of the audit results and recommendations:	1	5	4	1	1	23

Field	Choice Count
1 - Difficult to understand	1
2 - Somewhat difficult to understand	1
3 - Neutral	3
4 - Somewhat easy to understand	4
5 - Very easy to understand	14
Total	23

Q27 - If 1 or 2, how specifically could the report have been presented better to be easier to understand? If 4 or 5, what specifically was it about the report that made it easy to understand?

If 1 or 2, how specifically could the report have been presented better to be easier to understand?

If 4 or 5, what specifically was it about the report that made it easy to understand?

Give it a 4.5. Pretty easy to understand and straight forward -bring in the facilities folks when having the meetings. No suggestions. They are thorough especially detailed reports at end. Some colleagues wanted to know the formulas behind getting to the final numbers.

Info well-presented

All measures very easy to understand.
Summary of alternatives chart was very good and clear.

Report was way over-complicated, but also very generic. It barely focused on ESIP. Presentation done by Michele, and was not tailored to the district's needs. It was a copy and paste. The report is too tied to the prescriptive and custom rebates.

The overall content is easy to understand as an energy specialist -the data is there, it's understandable… easy to follow and move around report. Came in handy when he moved to Matawan because he was familiar with the program and reports – he could get up to date quickly for matawan.

The overall content – being an energy specialist -the data is there, it's understandable… easy to follow and move around report.

not asked

He could not remember specifically why he didn't understand.

N/A

Very good and thorough, but too limited to HVAC and lighting. It should include a more global inventory of what is possible, rather than what is in place already. Cost recommendations are limited, as they only look at replacing components.
Solar template is very helpful.

Q28 - Did you use the benchmark data provided?
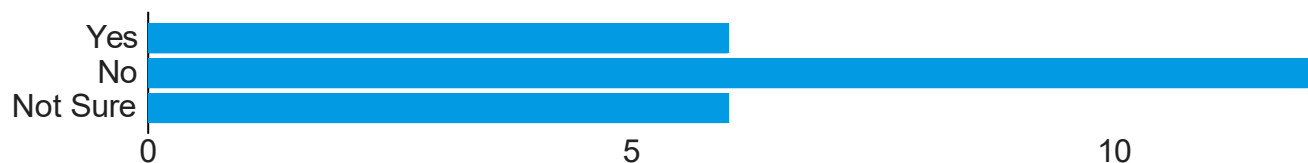
Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Did you use the benchmark data provided?	4	6	5	1	1	24

Field	Choice Count
Yes	6
No	12
Not Sure	6
Total	24

Q29 - If yes, how? Prompts (if needed): to compare future buildings to each other or to current buildings? to compare amongst buildings in your muni/district? to compare to other jurisdictions?

If yes, how?

Prompts (if needed): to compare future buildings to each other or to current buildings? to compare amongst buildings in your muni/district? to compare to other jurisdictions?

Helped team understand... How is the building doing – how the building performing etc. Each building very unique so didn't compare between the facilities. Have not done the comparison between similar building types.

Because of the type of wastewater facilities MUA uses, it doesn't fit for comparison too much.

It might be useful for a short time, but quickly becomes outdated.

NO, but useful to have it

Benchmark data not too useful - a lot of N/A's

Each building is so unique that benchmarks don't really apply.

Comparing to other districts (they are a 1-building district)

BA has left district

Not applicable

Not applicable

Q30 - Was the audit report information useful for other reasons? Prompts (if needed): - to compare future buildings? - to compare amongst buildings in your muni/district? - to compare to other jurisdictions - education/awareness? - decision-making? - budgeting?

Was the audit report information useful for other reasons?

Prompts (if needed):

- to compare future buildings?

- to compare amongst buildings in your muni/district?

- to compare to other jurisdictions
- education/awareness?
- decision-making?
- budgeting?

Financing and budgeting are key so having the cost estimates etc have been very helpful. High level for staff at facilities – photos have been helpful – understanding lighting, water etc. Helps because some staff at HQ and not at the individual facilities.
Sharing knowledge- energy /sustainability to interact with the facilities

Education about what current status ways to bring down cost and improve efficiency

References to green energy in the back were helpful.
We know that it's the first step in energy planning – reference guide

Utility spending portion is useful.
ECM write-ups are useful, but many are too high-level and don't address what the client needs or wants.

NO, but has potential to be useful

Q31 - Do you have separate electricity and gas providers?
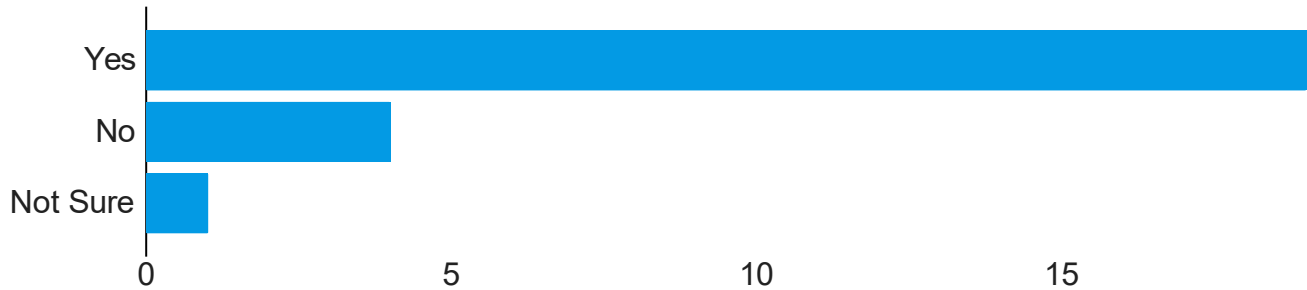
Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Do you have separate electricity and gas providers?	4	6	4	1	0	24

Field	Choice Count
Yes	19
No	4
Not Sure	1
Total	24

Q32 - How did that affect your ability to complete the project?

How did that affect your ability to complete the project?
Some of the utilities have more advanced EE programs than others.
Difficult to get bills from PSE&G. It depends on the account reps - some are good and some are not as good.
Utilities may push just one program that is easiest for them (e.g. Direct Install).
It didn't. Easy to get the info from both.

Edward J. Bloustein School
of Planning and Public Policy

I don't think it affected it. When I came in they had access to the utility providers. They had online log in accounts.

no additional challenges due to that

No response

No effect

PSE&G provides both supply and demand electricity. PSEG provided ng supply but Direct energy provides demand gas

Not an issue.

No.

Did not affect

BA left district

Q33 - Did the participant entity implement any of the energy conservation measures (ECMs) that were recommended through the program?
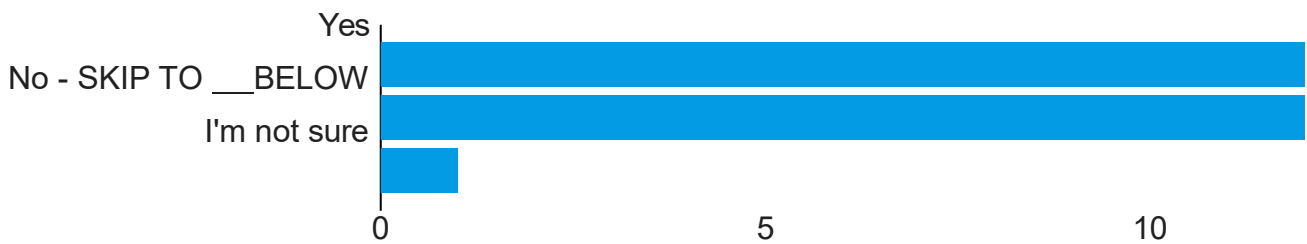
Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Did the participant entity implement any of the energy conservation measures (ECMs) that were recommended through the program?	6	8	7	1	0	25

Field	Choice Count

Yes	12
No - SKIP TO ___BELOW	12
I'm not sure	1
Total	25

Q34 - If yes, what was implemented?

If yes, what was implemented?

mostly lighting

Worked on HVAC upgrades, and also converting to natural gas boilers

Have done about 6 lighting upgrades…Gotten rebates from AC Electric

Lighting through a rebate program

Renovated some rooms, but done in-house

Lighting – they are doing it. BA had left and changes in admin -- a lot of moving parts. They were working on expanding solar at the time. Chris thinks they are currently moving forward with lighting.

Doesn't believe they followed up at all on audit recommendations

Have done some small things like LED light replacement.
Don't have final ESIP for Board to adopt as a project.
ESIP finds out what is out there in terms of design/build and sends it out for bid with third party financing.

More LEDs, was on agenda anyway, but LGEA reinforced need, at high 90% replacements; trying to get more efficient chillers and rooftop units that needed to be replaced anyway

Not applicable

Q35 - What utility/contractor implemented your ECMs?

What utility/contractor implemented your ECMs?

Garages = state co-op FSG, their contractor was Dewberry

AC Electric

PSE&G with FSG as the contractor

Third party supplier – had to do with cost of lights. Idea came from reports and then contact with JCPL rep – the data helped lead the way.

N/A

The ESCO (DCO) did the application and there were limited participants to choose from.

Used outsourced electrician (through your coop), so not through utility or their contractor

Not applicable

Not applicable

Q36 - Is there anything you'd like to share with us about the implementation of ECMs? Probe about any problems…What would have helped to remedy or prevent this problem? Specifically? What specific solution?

Is there anything you'd like to share with us about the implementation of ECMs?

Probe about any problems…What would have helped to remedy or prevent this problem? Specifically? What specific solution?

Nothing BPU could have done- it was on NJ transit coordination on their end--- Erin took over and invoices etc for rebate program and tracking when the monitoring, post verification took place.. and project documentation

No

Not aware of any problems.

Planning to replace boilers through ESIP with some Federal funding.

Not there at the time. Timing wasn't great so any incentives they would've tried to get didn't work out but helped in terms of "let's see what we can do next." The kitchen was something that needed work. The program made them more aware of the facilties – combo of report and going through process -gave info on kitchens and how to be more efficient -especially when school out – they did one thing from the recommendations – dishwasher – they upgraded to a more EE dishwasher at the HS.

Q37 - Was the need to install a bundle of ECMs rather than individual

ECMs an issue for the participating entity?
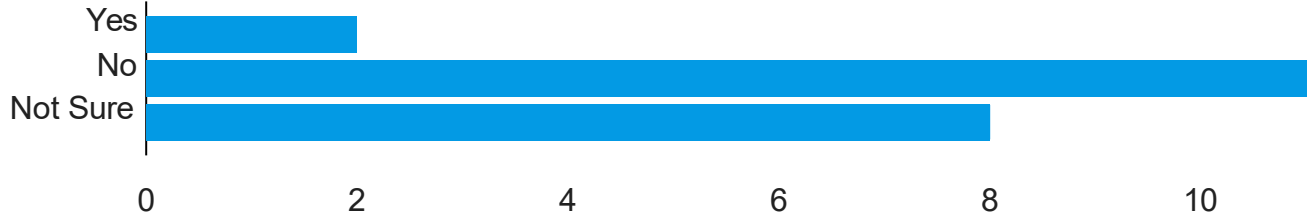
Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Was the need to install a bundle of ECMs rather than individual ECMs an issue for the participating entity?	1	3	2	1	0	21

Field	Choice Count
Yes	2
No	11
Not Sure	8
Total	21

Q38 - Why or why not?

Why or why not?

Mostly just doing the lighting – hope to bundle it more for future – more piecemeal now.
N/A
Lighting is a bundle of sorts, but no problem
NO NEED TO BUNDLE IF INSTALLATION PROCEEDED
They had a good handle where they were at and didn't need to bundle. Scheduling and how to run the boilers etc. was important – how unoccupied spaces were managed, etc. Hazlet had updated equipment and other schools were looking at what they done.
not asked
Did little individual measures
BA left district
Not applicable
No, they are planning mainly LED lights/fixtures and rooftop systems.

Q39 - Were there ECMs that you would have preferred, but which were not shown to be of most benefit?
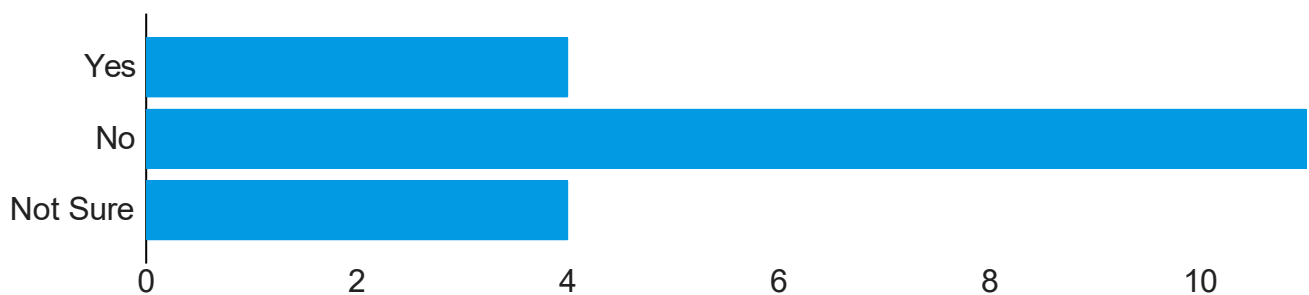
Field	Min	Max	Mean	Standard Deviation	Variance	Responses

Were there ECMs that you would have preferred, but which were not shown to be of most benefit?	1	3	2	1	0	19

Field	Choice Count
Yes	4
No	11
Not Sure	4
Total	19

Q40 - If yes, which ones?

If yes, which ones?
Depends on the facility. Often the HVAC needs to be paired with other ECMS to have better paybcack project.
N/A
Give and take…all included eventually
More on building automation or HVAC would have been preferred.
WANTED TO INCLUDE LIGHTING IN ALL PARKING LOTS
Would've liked to have done a few more areas in the HS sensor lighting and that was mentioned in the report. Focus was on expanding solar… the extra work on your daily tasks- it can get hectic – working with outside agencies on grants etc. And to find time for follow up on incentives- would've liked to have acted on more—focus was on ventilation after covid, etc. Deep dive on the equipment to be sure all was running correctly. Sometimes the timeline didn't work out to pursue things.
not asked
No, just delaying on the ones that were recommended that they do agree with

Scott doesn't have the LGEA Audit Report and doesn't know what was finally recommended. The situation was that the school district's outsourced architect previously recommended and the school district installed an absorption chiller manufactured by Chinese company "Broad" and that chiller had two negative effects: (1) it required an annual $35K maintenance that only Broad could provide; and (2) it needed a constant load associated air handlers operation all day including night-time. The LGEA Auditor was leaning toward keeping that chiller during the audit, but Scott does not know if the final report actually recommended it since he does not have that report. He is still trying to get rid of the chiller.

Not applicable

Not applicable

Absolutely, the LGEA audits sometimes eliminate ECMs that have low ROIs are based on short-term payback periods.

Q41 - What was your level of satisfaction in your interactions with TRC? (On a scale of 1-5 from extremely dissatisfied to extremely satisfied).
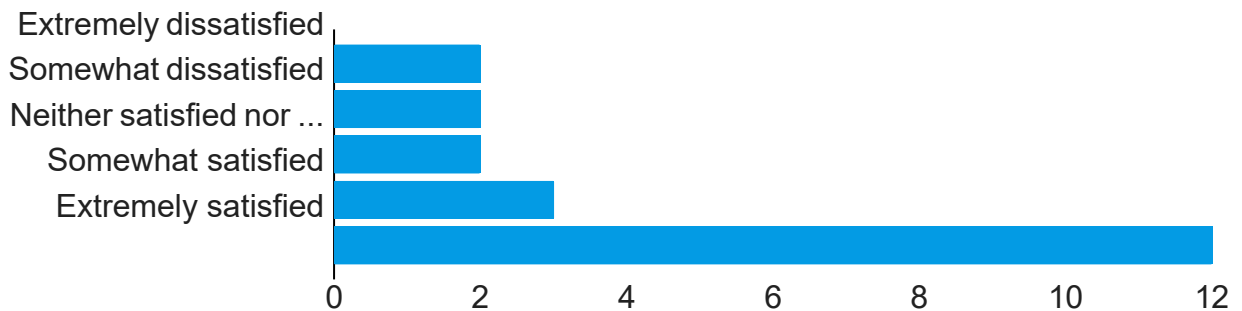
Field	Min	Max	Mean	Standard Deviation	Variance	Responses
What was your level of satisfaction in your interactions with TRC? (On a scale of 1-5 from extremely dissatisfied to extremely satisfied).	1	5	4	1	2	21

Field	Choice Count
Extremely dissatisfied	2
Somewhat dissatisfied	2
Neither satisfied nor dissatisfied	2
Somewhat satisfied	3
Extremely satisfied	12
Total	21

Q42 - Why? How could it be improved?

Why? How could it be improved?

They were very helpful. Erin walked around with the auditor for first one and they've been great. They showed up time and complied with all requirements – very professional.

absolutely wonderful to work with

Need more speed (it can take up to 18 months for the audit!), and need to reduce redundancy.

Done during COVID – took a long time but personnel were very fair and professional

N/A

Did not interact with TRC

Maybe coming back to do the presentation (not done because of COVID???), or other follow-up

BA left district

Not applicable

Good, responsive, seamless, well-run government program.

TRC's auditors were very professional, pleasant and well coordinated, but their work was very much according to a scripted and cursory standard procedure that did not really delve into the issues very deeply. A more holistic approach would reveal for example that LEDs are cooler and thus more heating is needed in winter. It is important to make the ECMs project as big as possible, so it will pay for itself. (With their line of credit, big capital cost investments are not a problem and can get non-energy co-benefits paid at the same time.)

Great. 5 out of 5 – totally great. Professional, followed up etc. walked through anything he needed help with

They were pleasant, easy to contact, always got back with responses if they didn't know the answer

Engineer very informative

Excellent – they were phenomenal – they explained things -very detailed.

Q43 - What was the experience of the participant entity during the handoff between TRC (audit) and the Utilities or Contractor (implementation)? How can this handoff be improved?

What was the experience of the participant entity during the handoff between TRC (audit) and the Utilities or Contractor (implementation)? How can this handoff be improved?

They gave them the audit- they had the meeting and then it's on NJ transit to take the next step. They lay out the options and then it's on NJ transit to decide which to choose.

Energy and Sustainability staff did the decision-making but they used this process to get the entities from the rail or other divisions more aware – what would you like to have audited next, etc. They are trying to get more organized with this – maybe let folks know they're role in the process and if a facility needs an upgrade to work together to implement the findings in the audit.

N/A

Paperwork exercise to get the rebate. Personnel with MUA installed the equipment.

Michele Rossi approves the RFP for the ESIP project.
There should be reporting on what happens with audit information...did they go to Direct Install, ESIP, Engineer Solutions, custom rebates, or what?

It was fine. Not a problem – he had full access to the accounts and he'd been putting the data in for 3 years so wasn't hard – even if something was missed- he was able to go into older files and get the info

N/A

N/a

It would be helpful if the audit were more detailed in looking beyond replacement, and would save town the money to be spent doing a more detailed review in the future.

ESIP is a great way to implement audits for a number of buildings. Should be a larger set of buildings – takes time and effort. (Rutala has done about a dozen that have worked out.) There are about 23 ESCOs and they are the only ones that can respond to the ESIP. They do a second more intense audit. From that, town can select the improvements, and as long as benefits offset cost, BPU will approve, and then the vendor implements.

The problem is that ESIPs don't work well with smaller communities because it's too much work, and expensive. It can work well if towns partner, or a town and school district combine to apply (e.g. Cape May did this).

Transition between TRC and into the ESIP process was good. A point person worked well. Would like more ESCOs to choose from in South Jersey.

Didn't use the utilities or their contractor, just the coop

Q44 - What was your level of satisfaction in your interactions with the Utility/Contractor? (On a scale of 1-5 from extremely dissatisfied to extremely satisfied).
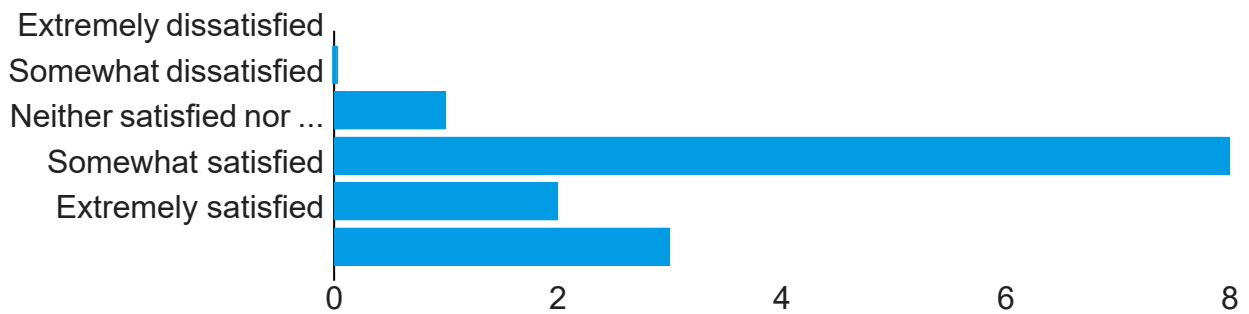
Field	Min	Max	Mean	Standard Deviation	Variance	Responses

What was your level of satisfaction in your interactions with the Utility/Contractor? (On a scale of 1-5 from extremely dissatisfied to extremely satisfied).	2	5	4	1	1	14

Field	Choice Count
Extremely dissatisfied	0
Somewhat dissatisfied	1
Neither satisfied nor dissatisfied	8
Somewhat satisfied	2
Extremely satisfied	3
Total	14

Q45 - Why? How could it be improved?

Why? How could it be improved?

It was a mix of in-house and some in-house installation and at antoher site – outside installed. They were satisfied. They are having some issues with some of the lights. One was done in two phases -trying to understand timing for rebate etc. has been challenging.

N/A

The district could not bid to finance the ESIP because of a bad credit rating.

N/A for Toms River

Didn't use the utilities or their contractor, just the coop

They did not implement ECMs.

Representatives of the utilities were not involved in the final presentation and utility contacts were not provided in the final presentation slides or in the individual school audit reports.

They are not working with the utilities; rather, they are working through the ESIP program with an ESCO, Honeywell, and that transition has been smooth except that they did not get any responses to their first RFP and had to reissue it. Interactions with the ESCO, Honeywell, have been good.

Q46 - Did you access any state or utility efficiency incentives, such as the NJ Clean Energy program? Other incentives or discounts?
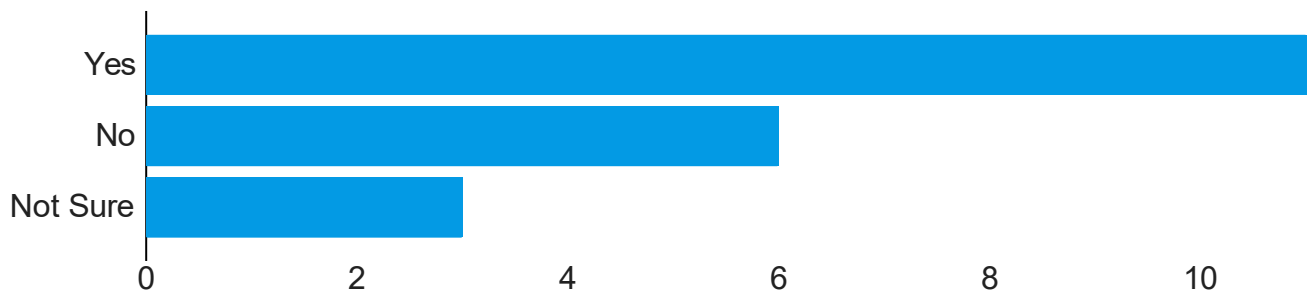
Field	Min	Max	Mean	Standard Deviation	Variance	Responses

Did you access any state or utility efficiency incentives, such as the NJ Clean Energy program? Other incentives or discounts?

4	6	5	1	1	20

Field	Choice Count
Yes	11
No	6
Not Sure	3
Total	20

Q47 - If yes, which ones?

If yes, which ones?

Large energy users program and Direct Install when it was with the state.

Used AC Electric Energy Solutions for Business Prescriptive/Custom Program

Direct Install through PSE&G

Don't remember – don't think so. They had already done the lighting incentives through the referendum process (architects: Spiezel at the time) added the savings checks once a year – from each set of buildings -they did 2 blgs the first year and 4 the following.

not asked

Yes, separate from and concurrent with the LGEA processs, they accessed NJCEP incentives for LED lighting, paying only $1,200 for a complete transition to LEDs in four schools. Separate from and after the LGEA process, they used an energy incentive program to purchase new dishwasher(s).

Used BPU Lighting Rebate

Trying to get a grant for the chiller; otherwise, they used a coop for purchase discounts

They did not take advantage of any incentives.

Not applicable

Yes, via the ESIP program they are exploring all available state incentives.

Yes – Combined Heat and Power, Large Energy Users Program, Pay for Performance, Prescriptive Incentivers -- but NOT through the LGEA program. They would use the Direct Install program's 60-70% cost incenetives as well, but they are not eligible for that.

Every time they make a change or put on a new roof, they increase insulation, they are looking into solar panels. They've shifted gears into being more aggressive AFTER the LGEA process but wasn't in place at the time. Board Committed to env sustainability and that helped move towards EE. They did EV charging station installation – got $ through "it pays to plugin." They believe they could have done it cheaper using own electrician instead of getting the $ from program and participating electrician (according to facilities director). Incentive to do it was the grant opportunity but afterwards they checked with their electrician and they believe that they could've done it cheaper on own.

EV charging stations

Using Direct Install, ESIP.
Also ESSER funds (from covid) Elementary and Secondary School Emergency Relief funds

Q48 - What percent of total project costs have EE program incentives covered?
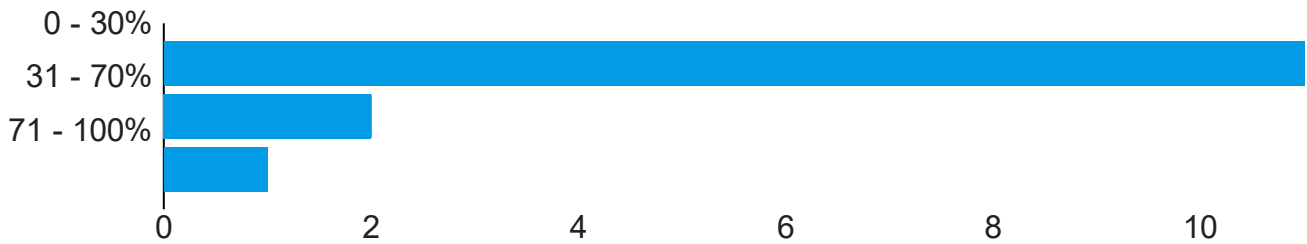
Field	Min	Max	Mean	Standard Deviation	Variance	Responses
What percent of total project costs have EE program incentives covered?	1	3	1	1	0	14

Field	Choice Count
0 - 30%	11
31 - 70%	2
71 - 100%	1

Total 14

Q49 - What is your level of satisfaction with the amount of incentives? (On a scale of 1-5 from extremely dissatisfied to extremely satisfied).
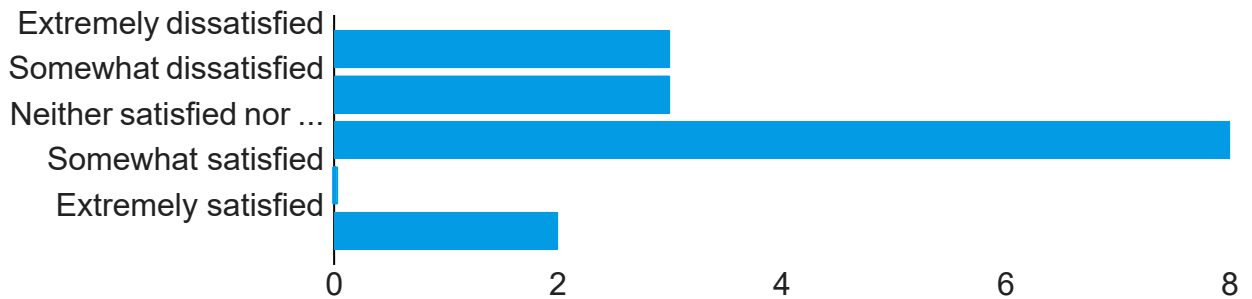
Field	Min	Max	Mean	Standard Deviation	Variance	Responses
What is your level of satisfaction with the amount of incentives? (On a scale of 1-5 from extremely dissatisfied to extremely satisfied).	1	5	3	1	1	16

Field	Choice Count
Extremely dissatisfied	3
Somewhat dissatisfied	3
Neither satisfied nor dissatisfied	8
Somewhat satisfied	0
Extremely satisfied	2
Total	16

Q50 - Why? What levels would be preferable?

Why? What levels would be preferable?

not sure of amount of incentives received

N/A

Take what we got…since we didn't need a lot of money

If you can do Engineered Solutions, it's a 5. If you can't do that, others are a 0! Prescriptive and custom does not give as much.

Fine but comes down to finances available.

Depends on the town. Some cannot borrow (e.g. AC). Some type of incentive that covers more of the cost for clearly underserved communities would be helpful.

Could always be more

Need more informatoin on incentives; used only the coop on LED purchases

They did not take advantage of incentives.

Projected as shown in the individual building LGEA audit reports.

They were very disappointed to find out that the scope of construction and therefore the amount of incentives was revised significantly lower than originally anticipated, and felt that they had been blindsided by this change and perceived it was due to State politics.

They did not access incentives through the LGEA program, but significant, perhaps over 50%, for Combined Heat and Power under the ESIP program.

For the more expensive ECMs like geothermal and heat pumps, the incentives offered are not big enough to take advantage of. They did not participate in the ESIP program; since the ECM capital costs were only $1.5 million out of the total capitatl budget of $42 million, or 2%, it did not make sense to take a loan.

Not LGEA related - in regards to EV charger incentive- They believe it would've been cheaper to do EV charging station on own.

They anticipate securing over $10 million in grants, with school match only at $500k

Q51 - What is your level of satisfaction with the timing of the incentive payments? (On a scale of 1-5 from extremely dissatisfied to extremely satisfied).
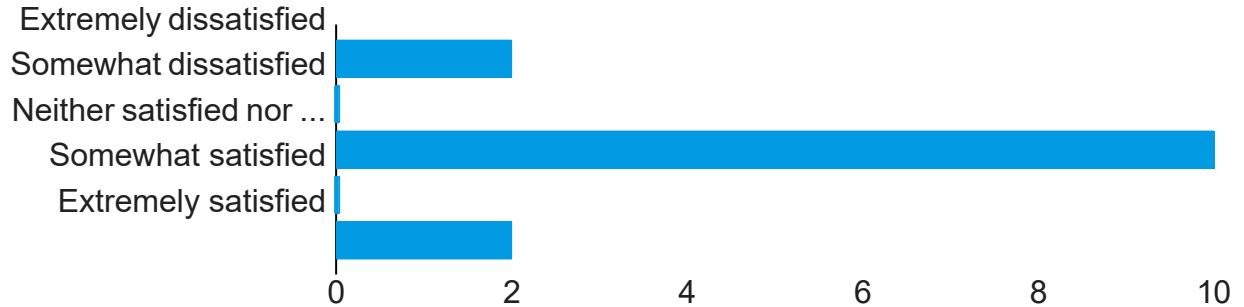
Field	Min	Max	Mean	Standard Deviation	Variance	Responses
What is your level of satisfaction with the timing of the incentive payments? (On a scale of 1-5 from extremely dissatisfied to extremely satisfied).	1	5	3	1	1	14

Field	Choice Count
Extremely dissatisfied	2
Somewhat dissatisfied	0
Neither satisfied nor dissatisfied	10
Somewhat satisfied	0
Extremely satisfied	2
Total	14

Q52 - How could this be improved? How well did the process synch (or did not) with capital budgeting process or approval cycle(s)?

How could this be improved? How well did the process synch (or did not) with capital budgeting process or approval cycle(s)?

They just received the $ for the FY 18 program. Considering the time effort etc. it took a long time (covid also delayed things). A lot of paperwork and documentation to track down
N/A
Timing is not an issue.
not asked
They do not have the funding to implement the LGEA ECM recommendations.

Q53 - If no ECMs were implemented, what were the reasons that the ECMs were not implemented? Prompts (if needed): - Staff changes - Budgeting process or lack of funding - Lack of capacity (staff time etc.) to move forward - Need more information to move forward

If no ECMs were implemented, what were the reasons that the ECMs were not implemented?

Prompts (if needed):

- Staff changes

- Budgeting process or lack of funding

- Lack of capacity (staff time etc.) to move forward

- Need more information to move forward

NA

If they don't do an ESIP, they probably don't have funding, even though ESIP is a better deal with a longer payback.

Part of the reason the project didn't go through is the support of the Business Administrator (left during the process).

Energy conservation is still a mystery.

NO GRANT FUNDING ASSOCIATED WITH RECOMMENDATIONS

Covid timing, change of leadership, budget, architects/engineers- they've been making long range plans for facilities – no one jumped on some of the opporutunities—trying to keep the lights on so to speak

Q54 - Have you undertaken any EE improvements to your facilities outside of the LGEA program – e.g., new HVAC, water heating, lighting, etc.
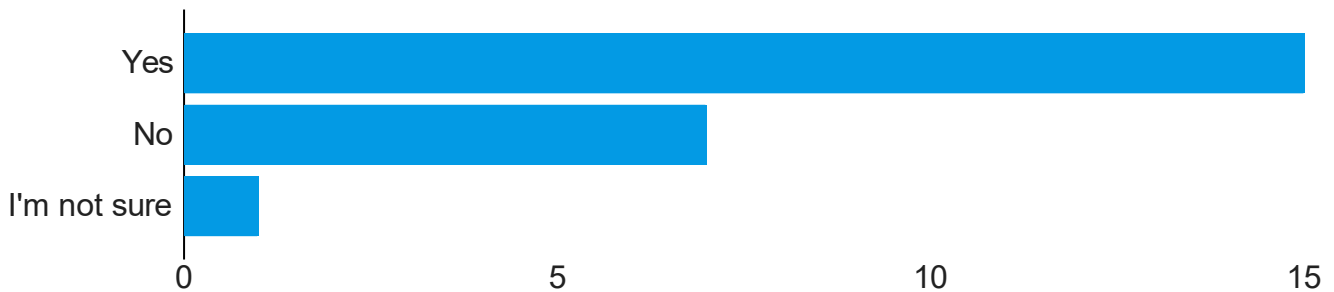
Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Have you undertaken any EE improvements to your facilities outside of the LGEA program – e.g., new HVAC, water heating, lighting, etc.	3	5	3	1	0	23

Field	Choice Count
Yes	15
No	7

I'm not sure	1
Total	23

Q55 - If yes, when and what?

If yes, when and what?
Yes – have done some direct install for lighting at facilities that haven't done audit progam yet, for example.
lighting project
Yes- improvements to BMS and getting it onto virtual server- getting better access to the equipment – was on old style BMS- Chris has specialty in BMS. Optimizing use of BMS. They previously had two providers, now one.
had started some before the audit (upgrading some motors to more efficient models, etc.)
Yes, separate from and concurrent with the LGEA processs, they accessed NJCEP incentives for LED lighting, paying only $1,200 for a complete transition to LEDs in four schools. Separate from and after the LGEA process, they used an energy incentive program to purchase new dishwasher(s).
LED installs, HVAC upgrades (auditorium HS, elementary school), ongoing control upgrades. started in 2019 and ongoing
Have replaced things as necessary, and intend to then recapture money spent through ESIP
Small things, like upgrading refrigerators and dish washers, did on their own
The chiller described above which they have several reasons for not wanting.
Not applicable
No, not really; they had planned some lighting ECMs but deferred those to the LGEA and ESIP programs.
Yes, see above discussion of ECMs implemented using the ESIP program and ESCOs.
They had started converting lighting to LEDs prior to their LGEA audits and have continuing plans to install EV charging stations.

Q56 - Have you worked with an Energy Service Company (ESCO)?
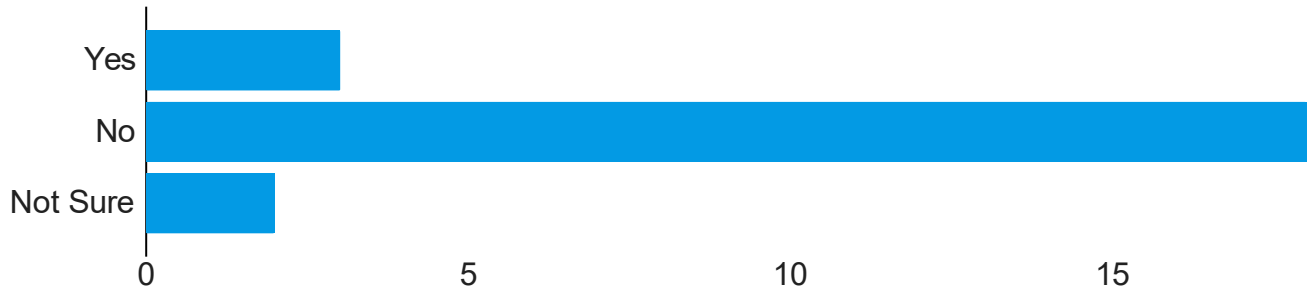
Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Have you worked with an Energy Service Company (ESCO)?	4	6	5	0	0	23

Field	Choice Count
Yes	3
No	18
Not Sure	2
Total	23

Q57 - If yes, which ones?

If yes, which ones?
ESCO not involved after ESIP fell through.
Got list from BPU and only one was eligible for South Jersey - DCO.
Not applicable
Not applicable
Not applicable
They are planning to work with Honeywell through the ESIP program.
Yes, including Johnson Controls, DCO Engineering and Centrica Energy, but only through the ESIP process and not via LGEA audits.
Schneider Electric

Q58 - Do you have a Green Purchasing Policy?
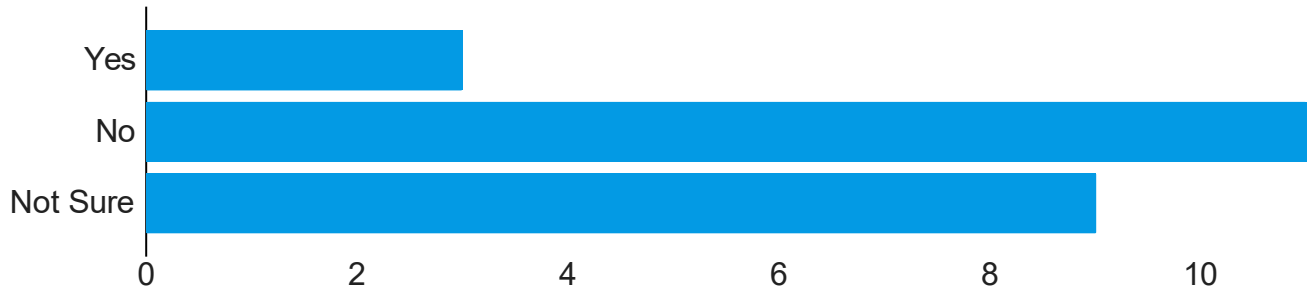
Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Do you have a Green Purchasing Policy?	7	9	8	1	0	23

Field	Choice Count
Yes	3
No	11
Not Sure	9
Total	23

Q59 - Was there a meeting(s) or follow up(s) after your entity received the audit report?
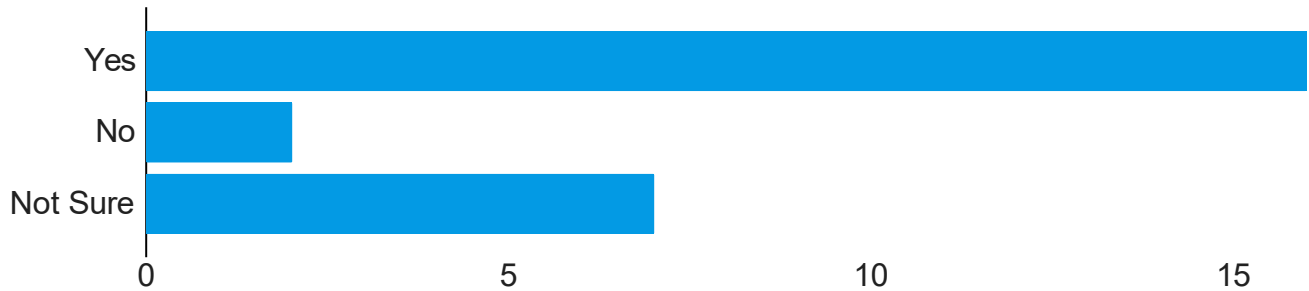
Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Was there a meeting(s) or follow up(s) after your entity received the audit report?	4	6	5	1	1	25

Field	Choice Count
Yes	16
No	2
Not Sure	7
Total	25

Q60 - If yes, who was involved / attended?

If yes, who was involved / attended?
Last round – Sarah from BPU, TRC, and Erin and her team and relevant facility staff.
BA, Chris Mobley, Tracy Woods & Meredith Coley (of TRC Team)
Included this topic in meetings about priorities

TOWNSHIP CFO, SUSTAINABILITY DIRECTOR & LEAD DPW BUILDING MAINTENANCE / JOURNEYMAN ELECTRICIAN

Chris Villa, Chris mullens (BA), Charlie hillner- director of facilites, TRC

Don't know. There may have been a presentation – not sure. Chris saw something on google drive.

not asked

He can't remember specifically (but the BPU data show that there was a final presentation and that both Frank and the former BA participated.

Smaller committee to follow-up after presentation.

TRC just called to make sure they got the report, no presentation

BA left district

Yes, there was a final presentation by video meeting. Several representatives of TRC, the EHCPS Business Administrator and John for Becica.

Yes, him and several TRC auditors

Yes, the audit report was presented at a meeting with participants including the building occupant, TRC's auditor, including usually Sarah Walters of TRC.

There was a single virtual meeting to present the final audit report with 3 staff each from BCBC and TRC.

Q61 - Describe any other ongoing meetings or communication. Prompts: How many meetings? How useful were they?

Describe any other ongoing meetings or communication.

Prompts: How many meetings? How useful were they?

NA

N/A

N/A

CRDA has on-call engineering firms

None with TRC

BA left district

Not applicable

Not applicable

Not applicable

Q62 - Have you consulted with any other schools/munis in the LGEA program to share or learn what works?
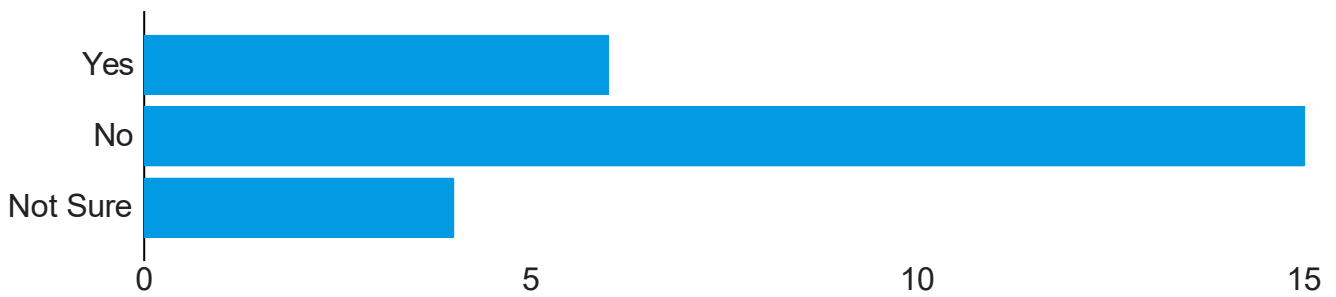
Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Have you consulted with any other schools/munis in the LGEA program to share or learn what works?	1	3	2	1	0	25

Field	Choice Count
Yes	6
No	15
Not Sure	4
Total	25

Q63 - If yes, how did you hear about it? How helpful has it been?

If yes, how did you hear about it? How helpful has it been?

Orange BOE

Contacted Newark to see how they worked on the application – what consultants did they use? What worked for them?

Talked with others who have been LGEA and more importantly the master planning process

There were some talks about energy between the two districts (MARSD and Hazlet). Signing a contract with synergistic – monitor enegy with energy cap.

Not sure if contacted Hazlet or not. There were some talks about energy program between the two districts. Signing a contract with synergistic – monitor enegy with energy cap.

State hubs - towns share information there.

Not applicable

BA left district

Not applicable

Not applicable

Not applicable

Yes, frank meets with various Business Administrators in Camden County for a monthly breakfast where they share info on programs they find and potential funding sources they learn about

Q64 - What was your level of satisfaction with the closeout procedures? (On a scale of 1-5).
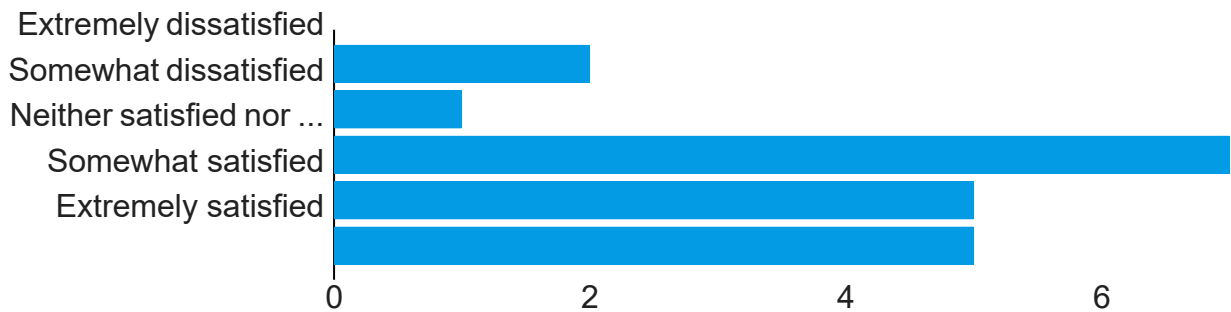
Field	Min	Max	Mean	Standard Deviation	Variance	Responses

What was your level of satisfaction with the closeout procedures? (On a scale of 1-5).

1	5	4	1	1	20

Field	Choice Count
Extremely dissatisfied	2
Somewhat dissatisfied	1
Neither satisfied nor dissatisfied	7
Somewhat satisfied	5
Extremely satisfied	5
Total	20

Why? How could they be improved?

Audits are straightforward – satisfied with the audit and close out. The next steps are the more challenging – more resources needed (on NJ transit side)

Very comfortable

Finished project at tail end of COVID so they had a lot of challenges. Not able to have crescendo presentation. Better to do in person.

Should be more tailored to what the client wants to hear about.

Chris wasn't there at the time.

N/A

n/A

It works.

Needed the final presentation or other followup

BA left district

Not applicable

It was fine/good; they signed the audit report acceptance page, but the State Data Center was not happy with having to reduce their energy consumption – they want more power, not less, despite it having been shown that their consolidation from many smaller data centers did allow more energy efficiency.

N/A

had no experience with this

N/A

Q66 - What were the positives/benefits from participating in the program?

What were the positives/benefits from participating in the program?

Gives NJ Transit great overview of facilities and assets – particularly the ones with high energy use. Great starting point and great tool to engage with facilities' staff and let them know programs are available and that Erin's team available. Categorizing assets in general has been a great tool for NJ Transit.

Certainly provided some info about energy consumption and set them up to be able to make such changes. Big takeway for Chris - they didn't know about the program and only found out about it because SJ intern told Chris about it- so would be good to have more widespread marketing and communications.

Main kickstart for master planning
Gave field personnel an assignment to take a hard look at facilities. Personnel learned by this

Small amount of useful information

Audit report received

Better understanding of the equipment. Used as their own benchmark since they had just finished up improvements through referendum.

Reports are a positive because he has them for reference and can use them for construction meetings- has used them to locate the equipment and facilities layout – very useful – can help to apply for grants. Trying to get looped in with JCPL and one of their incentives programs.

You don't realize how energy inefficient existing facilities are on the day to day. Better understanding of how little things/changes add up to savings … also opportunities to save on "man hours" (example of less time changing light bulbs if longer lasting lightbulbs).

Able to see where we could actually save some money on energy efficiency.

He surmises that the benefits will be that the audit will help the district learn about what upgrades are needed, will suggest areas to improve efficiency and comfort

Q67 - What were the negatives/challenges of participating in the program? Prompt/Drill down for each: What specifically would solve this for you?

What were the negatives/challenges of participating in the program?

Prompt/Drill down for each: What specifically would solve this for you?

Not a negative but staying organized and making sure correct people at each facility involved and stay engaged throughout the process is important and also following through on the next steps

If they use prescriptive implementations ? but there might need to be another in-depth audit… that could be a negative if need another one.

Time-consuming, but during COVID, it was difficult, so don't blame them…Data collection takes a long time, but expected it to take time.

Slow speed of process and burden on district

No funding

none.

Haven't heard any in particular.

Amount of time to implement from start to finish (including implementation) 5 – 10 year start to finish. There is a lot that has to get done and variation between facilities -
Sewer treatment plant for example is complicated- some easier than others (DPW facilities easier). Need to consider phasing for people working in spaces so doesn't interrupt day to day etc.. Don't just click heels and its done.

There weren't any.

Q68 - Do you have any specific suggestions for how to improve the delivery of the LGEA program?

Do you have any specific suggestions for how to improve the delivery of the LGEA program?

Been useful they've done a lot.
Bridging the gap between the audit and implementation is important.
Sarah Walters at BPU has made process easy.

More marketing and outreach because they didn't know about the program.

No

Suggestions in report were great- the way school districts work its not easy to say ok, now we'll do this – everything takes time!

Suggestion: in initial interview, let participants know ahead that the information re equipment stays useful and can be helpful for the operations staff. if just starting -let people know the reports are long-standing and can be a valuable beyond initial audit program. Even though they really didn't implement much, there is still value. You can't always jump on it right away – in reality it might be helpful for something for down the road.

It creates a lot of work and resources are limited. As much as technology is changing, when will we be caught up? Robert reads up on a lot of things – what will technology be 5-10 years from now? What if city implements all and spends all the money by time implanted, then something new is already available?

Support to get out of the gate – have someone – like a list of people that are qualified and vetted and hire them as a consultant – and city gets reimbursed.

No

Do the final presentation and other followup; more information on incentives

BA left district

The program was easier to understand and benefit from before ECMs installation responsibility was transferred to the utilities.

BPU webinars would be helpful.

No, the program is very seamless, well-rounded and well delivered.

Q69 - Is there anything else you'd like to share with us about participating in the LGEA program?

Is there anything else you'd like to share with us about participating in the LGEA program?

Erin shared the audit reports with respective facilities staff

No. It was great.

Tackled items that were "lowest hanging fruit." Other projects will be done, but not as necessary right now. Will wait until items break or need repair. Also want to wait for CMCMUA Energy Master Plan to be done.

Originally program included 5 different energy auditors. They would bid and it would get done. TRC gets paid no matter what, so there is no incentive to do it quickly. They don't send anyone out to help. HUGE difference from when it was the five auditors…report was 250-500 pages with list of items that could be incentivized. TRC SOW is merely incentives. (Example – No weatherization incentives, so they don't include it.) TRC costing is not good. Audit used to be very good and useful and clients wanted to know the information. Now they only do it because of the ESIP.

No

Everyone was friendly and helpful. It was hot and people were masks. They were able to get it done- process is pretty self-explanatory – if you understand energy .

No. At that time he was in Hazlet- he was working with TRC and SJ and trying to get all the buildings certified for Energy Star- He found the energy audit was very helpful to have there. Benefit of having the report – having the data and looping it into long range plan for facilities.

The team they sent out from the PR person straight on down was professional and didn't interfere with day-to-day operations… everything was good. Main thing- I work in AP, "anything free is for me".

No

Q70 - Thank you very much for taking the time to talk with us today. Your contribution is a very important part of the process. Do you mind if we follow-up with you if any additional questions arise?

Thank you very much for taking the time to talk with us today. Your contribution is a very important part of the process. Do you mind if we follow-up with you if any additional questions arise?

no

No.

no

yes

no

OK

yes

No problem

No

yes

no.

Yes.

Happy for follow up questions

Q71 - To summarize, for each stage of the program in which you participated, please rate the level of satisfaction:
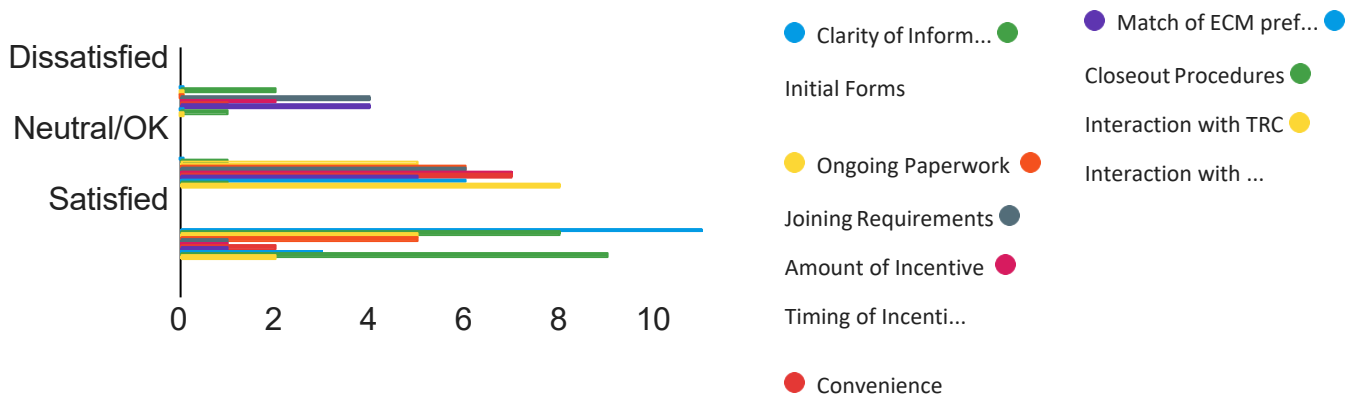
Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Clarity of Information	3	3	3	0	0	11
Initial Forms	1	3	3	1	1	11
Ongoing Paperwork	2	3	3	1	0	10
Joining Requirements	2	3	2	0	0	11
Amount of Incentive	1	3	2	1	0	11
Timing of Incentive Money	1	3	2	1	0	10
Convenience	1	3	2	1	0	10
Match of ECM preferred versus what provided most benefit	1	3	2	1	0	10
Closeout Procedures	2	3	2	0	0	9

Interaction with TRC	1	3	3	1	0	11
Interaction with Contractor/Utility	2	3	2	0	0	10

Field	Dissatisfied	Neutral/OK	Satisfied	Total
Clarity of Information	0	0	11	11
Initial Forms	2	1	8	11
Ongoing Paperwork	0	5	5	10
Joining Requirements	0	6	5	11
Amount of Incentive	4	6	1	11
Timing of Incentive Money	2	7	1	10
Convenience	1	7	2	10
Match of ECM preferred versus what provided most benefit	4	5	1	10
Closeout Procedures	0	6	3	9
Interaction with TRC	1	1	9	11
Interaction with Contractor/Utility	0	8	2	10

Q9 - Topics
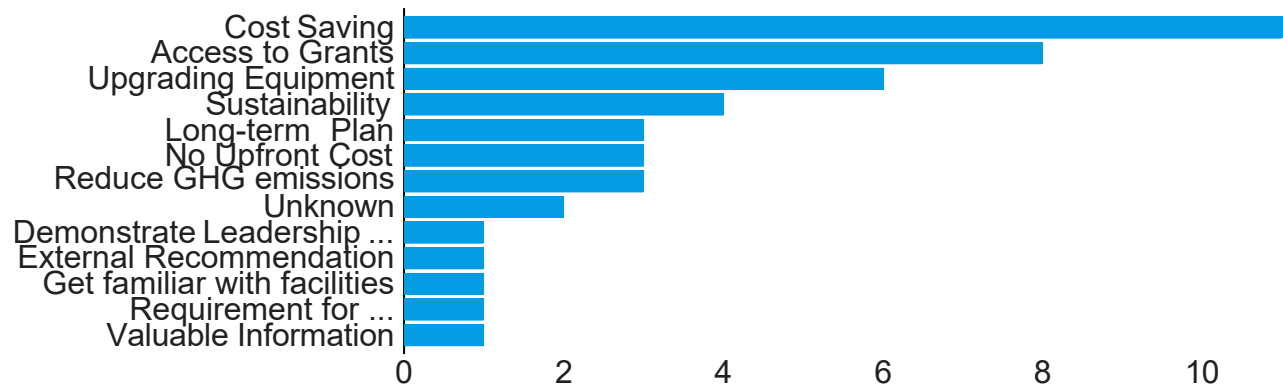
Field	Choice Count
Cost Saving	11
Access to Grants	8
Upgrading Equipment	6
Sustainability	4

Long-term Plan	3
No Upfront Cost	3
Reduce GHG emissions	3
Unknown	2
Demonstrate Leadership as Environmental Agency	1
External Recommendation	1
Get familiar with facilities	1
Requirement for Participating in ESIP Programs	1
Valuable Information	1
Total	45

Q9 - Sentiment
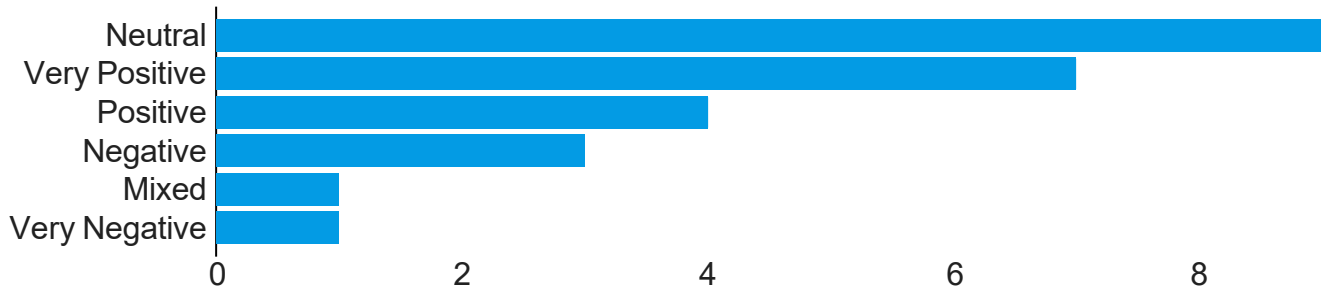
Field	Choice Count
Neutral	9
Very Positive	7
Positive	4
Negative	3
Mixed	1
Very Negative	1
Total	25

Q9 - Sentiment Score

Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Q9 - Sentiment Score	-2	2	1	1	1	25

Q9 - Sentiment Polarity

Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Q9 - Sentiment Polarity	0	0	0	0	0	25

Q9 - Topic Sentiment Label
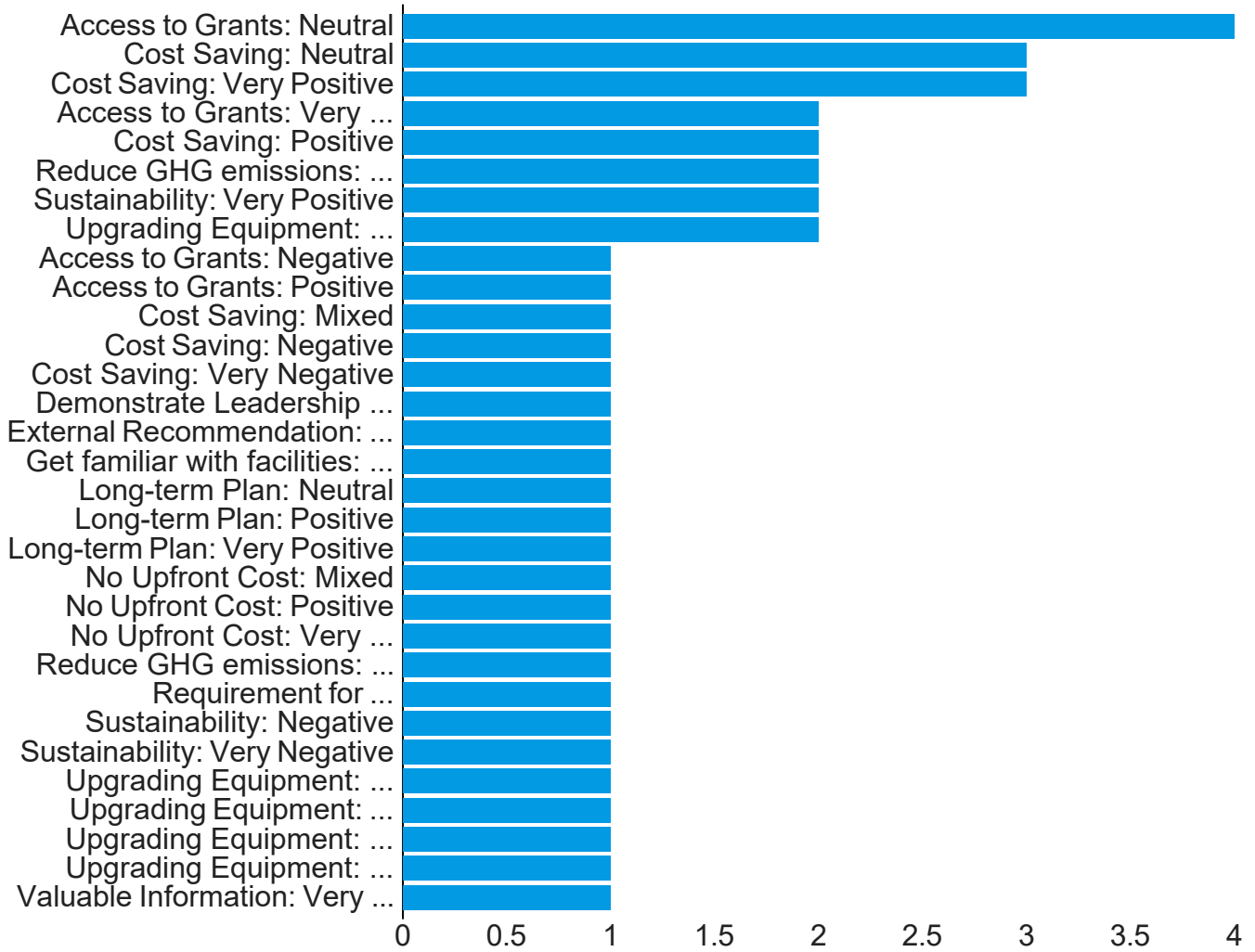
Field	Choice Count
Access to Grants: Neutral	4
Cost Saving: Neutral	3
Cost Saving: Very Positive	3
Access to Grants: Very Positive	2
Cost Saving: Positive	2
Reduce GHG emissions: Very Positive	2
Sustainability: Very Positive	2

Upgrading Equipment: Negative	2
Access to Grants: Negative	1
Access to Grants: Positive	1
Cost Saving: Mixed	1
Cost Saving: Negative	1
Cost Saving: Very Negative	1
Demonstrate Leadership as Environmental Agency: Neutral	1
External Recommendation: Neutral	1
Get familiar with facilities: Positive	1
Long-term Plan: Neutral	1
Long-term Plan: Positive	1
Long-term Plan: Very Positive	1
No Upfront Cost: Mixed	1
No Upfront Cost: Positive	1
No Upfront Cost: Very Positive	1
Reduce GHG emissions: Very Negative	1
Requirement for Participating in ESIP Programs: Neutral	1
Sustainability: Negative	1
Sustainability: Very Negative	1
Upgrading Equipment: Neutral	1
Upgrading Equipment: Positive	1
Upgrading Equipment: Very Negative	1
Upgrading Equipment: Very Positive	1
Valuable Information: Very Positive	1
Total	43

Q9 - Topic Sentiment Score
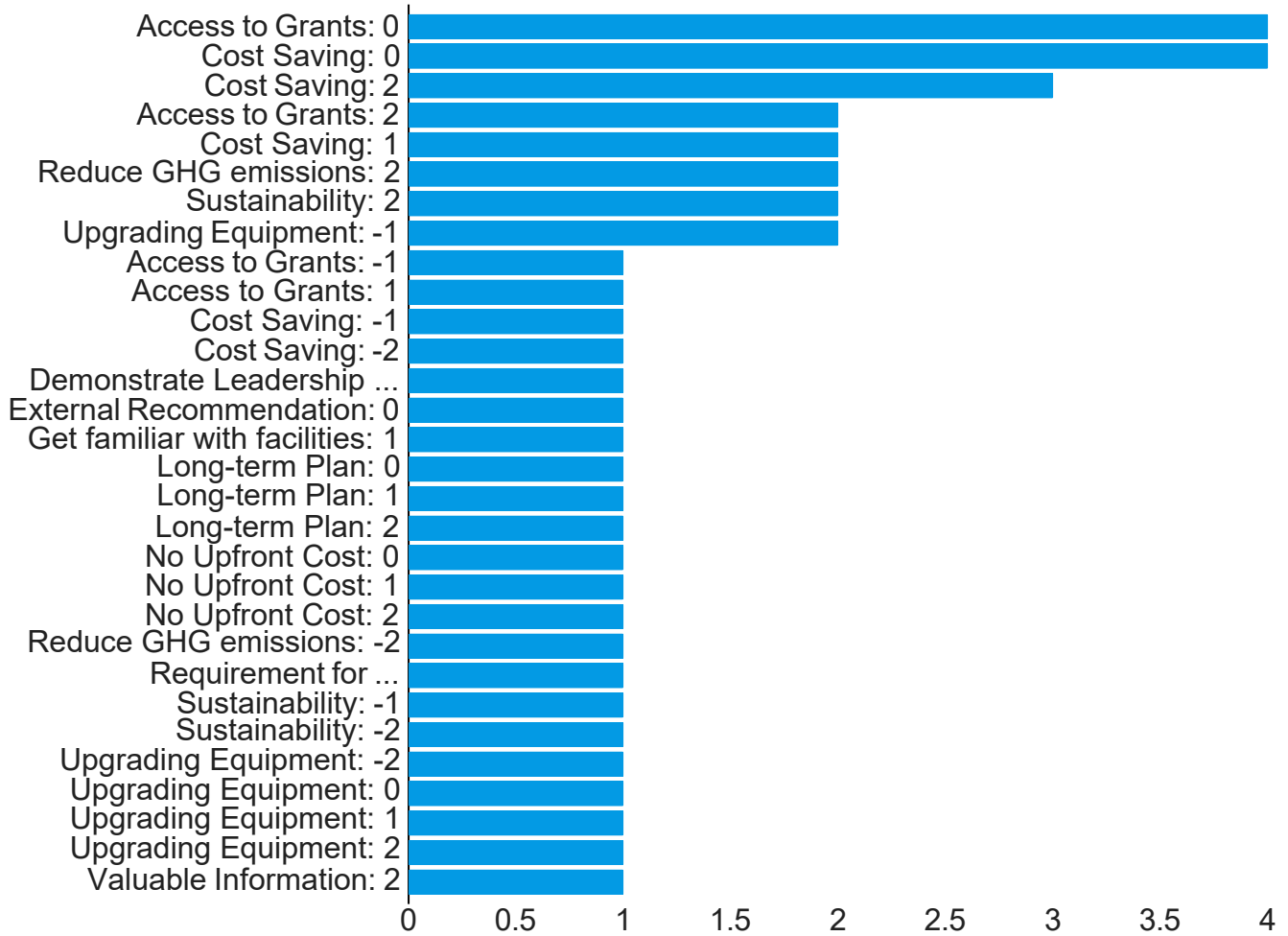
Field	Choice Count
Access to Grants: 0	4
Cost Saving: 0	4
Cost Saving: 2	3
Access to Grants: 2	2
Cost Saving: 1	2
Reduce GHG emissions: 2	2
Sustainability: 2	2
Upgrading Equipment: -1	2
Access to Grants: -1	1
Access to Grants: 1	1

Cost Saving: -1	1
Cost Saving: -2	1
Demonstrate Leadership as Environmental Agency: 0	1
External Recommendation: 0	1
Get familiar with facilities: 1	1
Long-term Plan: 0	1
Long-term Plan: 1	1
Long-term Plan: 2	1
No Upfront Cost: 0	1
No Upfront Cost: 1	1
No Upfront Cost: 2	1
Reduce GHG emissions: -2	1
Requirement for Participating in ESIP Programs: 0	1
Sustainability: -1	1
Sustainability: -2	1
Upgrading Equipment: -2	1
Upgrading Equipment: 0	1
Upgrading Equipment: 1	1
Upgrading Equipment: 2	1
Valuable Information: 2	1
Total	43

Q9 - Actionability
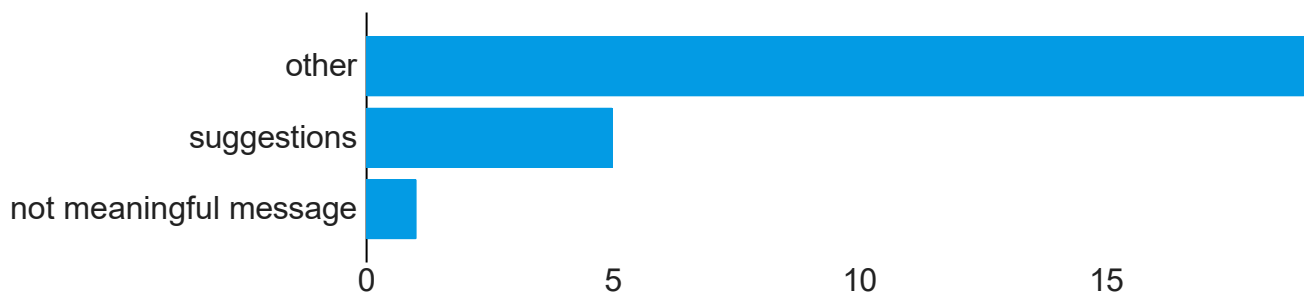
Field	Choice Count
other	19
suggestions	5
not meaningful message	1
Total	25

Entity Name

Entity Name
NJ Transit
Orange Township
Jersey City Public Schools
Cape May County Utility Authority
Kearny Board of Education

Financial Year

Field	Responses
Financial Year	24

Field	Choice Count
FY 22	16
FY 21	8
Total	24

Q66 - Sentiment Polarity

Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Q66 - Sentiment Polarity	0	0	0	0	0	23

Q66 - Sentiment Score

Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Q66 - Sentiment Score	-1	2	1	1	1	23

Q66 - Sentiment
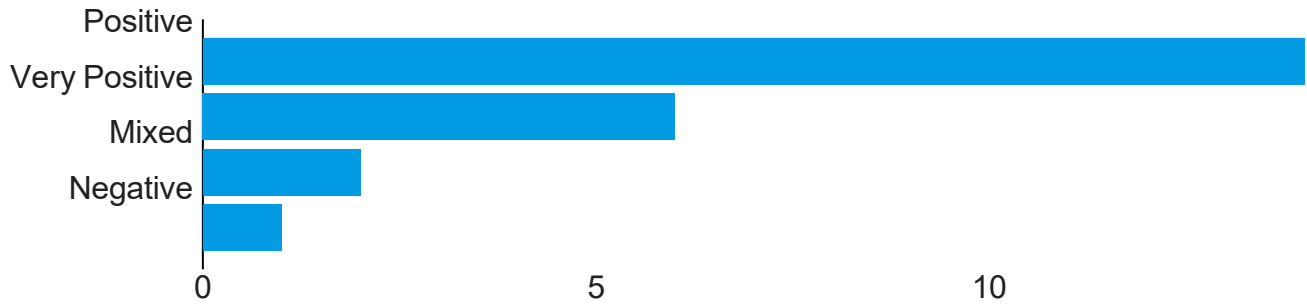
Field	Responses
Q66 - Sentiment	23

Field	Choice Count
Positive	14
Very Positive	6
Mixed	2
Negative	1
Total	23

Q66 - Topics
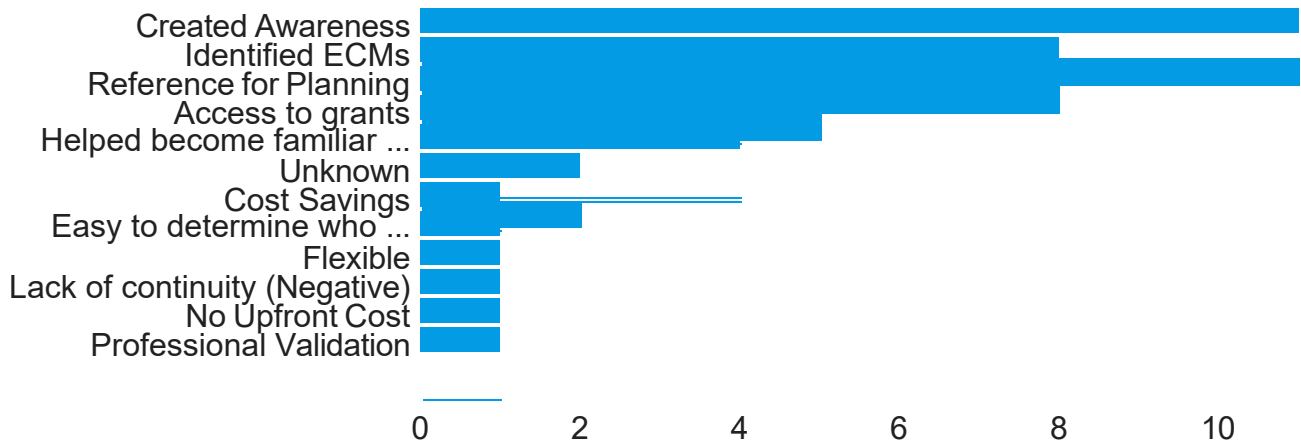
Field	Choice Count
Created Awareness	11
Identified ECMs	8
Reference for Planning	5
Access to grants	4
Helped become familiar with facilities	4
Unknown	2
Cost Savings	1
Easy to determine who deserves grants	1
Flexible	1
Lack of continuity (Negative)	1
No Upfront Cost	1
Professional Validation	1
Total	40

Q66 - Actionability

Field	Responses
Q66 - Actionability	23

Field	Choice Count
other	21

not meaningful message	1
suggestions	1
Total	23

Q66 - Topic Sentiment Label
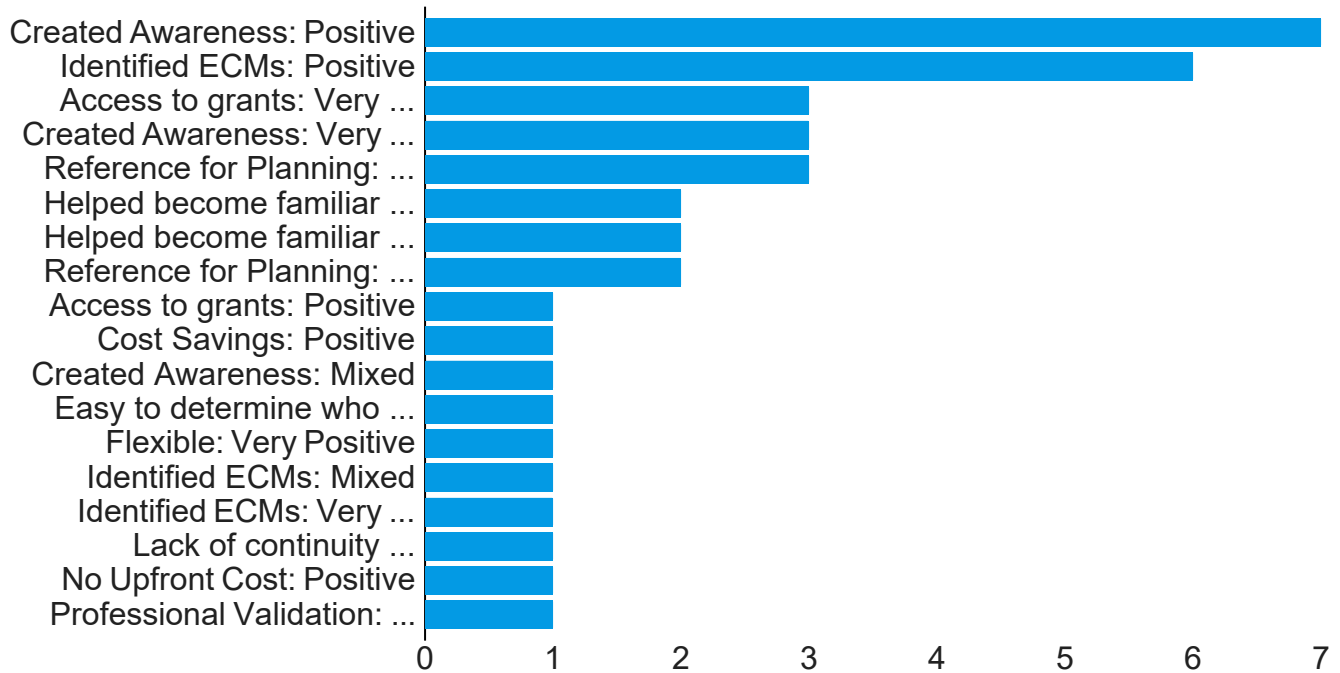
Field	Choice Count
Created Awareness: Positive	7
Identified ECMs: Positive	6
Access to grants: Very Positive	3
Created Awareness: Very Positive	3
Reference for Planning: Positive	3
Helped become familiar with facilities: Positive	2
Helped become familiar with facilities: Very Positive	2
Reference for Planning: Very Positive	2
Access to grants: Positive	1
Cost Savings: Positive	1
Created Awareness: Mixed	1
Easy to determine who deserves grants: Mixed	1
Flexible: Very Positive	1

Identified ECMs: Mixed	1
Identified ECMs: Very Positive	1
Lack of continuity (Negative): Negative	1
No Upfront Cost: Positive	1
Professional Validation: Positive	1
Total	38

Q66 - Topic Sentiment Score
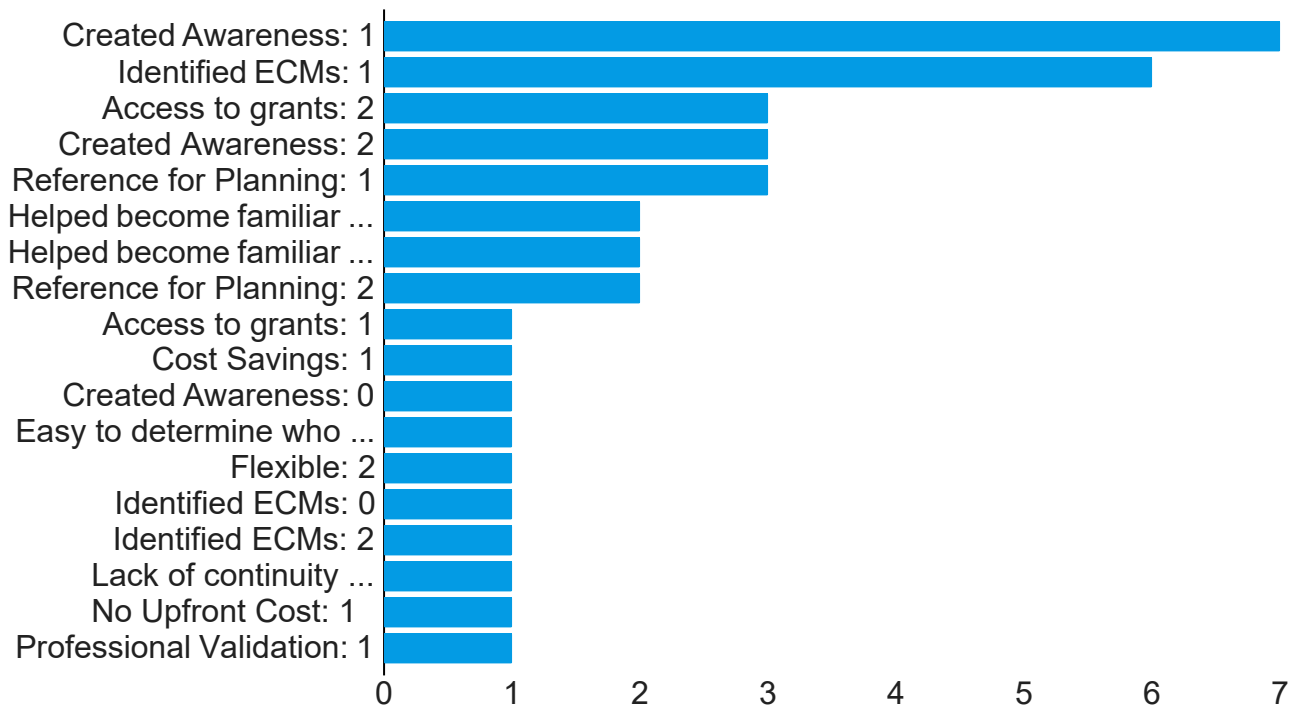
Field	Choice Count
Created Awareness: 1	7
Identified ECMs: 1	6
Access to grants: 2	3
Created Awareness: 2	3
Reference for Planning: 1	3

Helped become familiar with facilities: 1	2
Helped become familiar with facilities: 2	2
Reference for Planning: 2	2
Access to grants: 1	1
Cost Savings: 1	1
Created Awareness: 0	1
Easy to determine who deserves grants: 0	1
Flexible: 2	1
Identified ECMs: 0	1
Identified ECMs: 2	1
Lack of continuity (Negative): -1	1
No Upfront Cost: 1	1
Professional Validation: 1	1
Total	38

Q67 - Sentiment Polarity

Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Q67 - Sentiment Polarity	0	0	0	0	0	23

Q67 - Sentiment Score

Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Q67 - Sentiment Score	-2	0	-1	1	1	23

Q67 - Sentiment
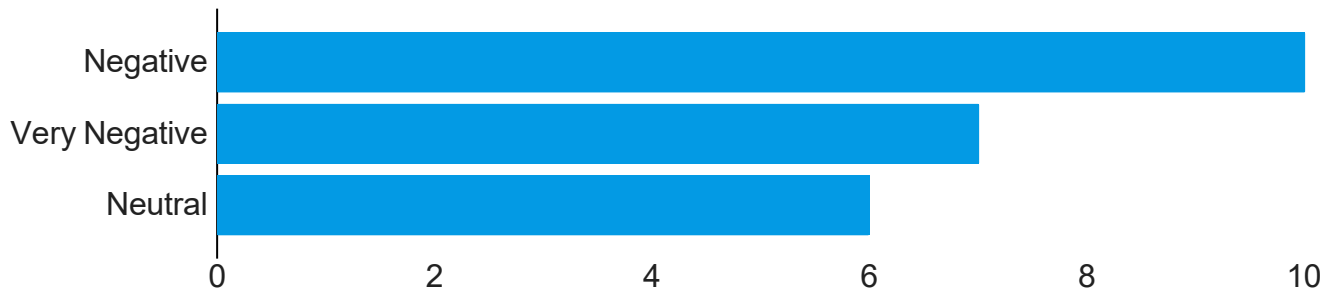
Field	Responses
Q67 - Sentiment	23

Field	Choice Count
Negative	10
Very Negative	7
Neutral	6
Total	23

Q67 - Topics
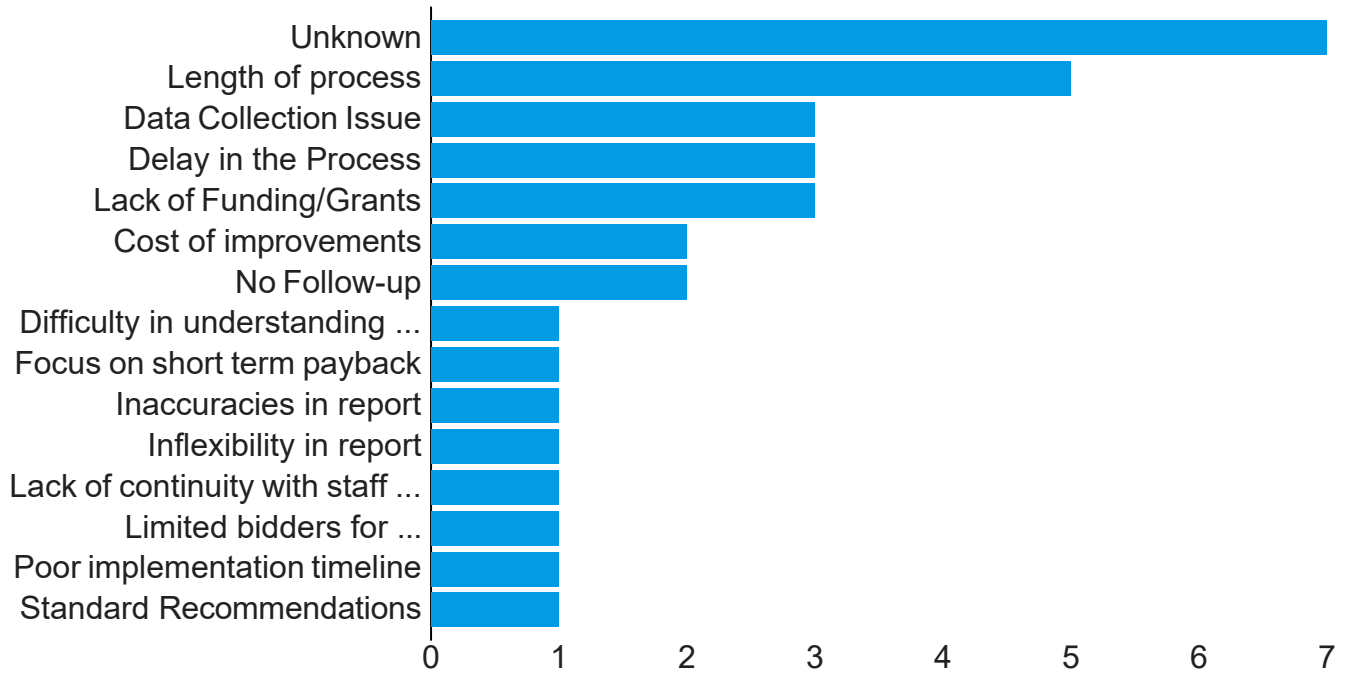
Field	Choice Count
Unknown	7
Length of process	5
Data Collection Issue	3
Delay in the Process	3
Lack of Funding/Grants	3
Cost of improvements	2
No Follow-up	2
Difficulty in understanding the process	1
Focus on short term payback	1
Inaccuracies in report	1
Inflexibility in report	1
Lack of continuity with staff changes	1
Limited bidders for implementation	1

Poor implementation timeline 1

Standard Recommendations 1

Total 33

Q67 - Actionability
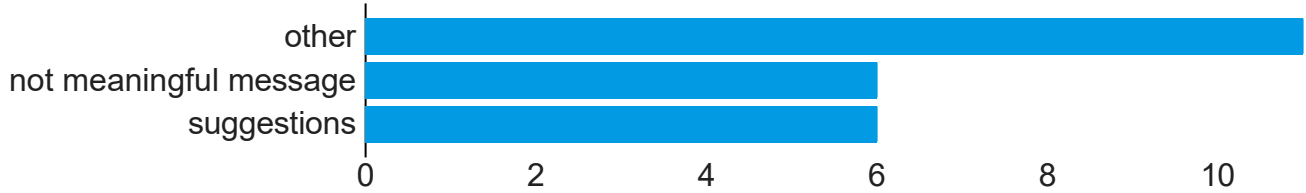
Field	Responses
Q67 - Actionability	23

Field	Choice Count
other	11
not meaningful message	6
suggestions	6
Total	23

Q67 - Topic Sentiment Label
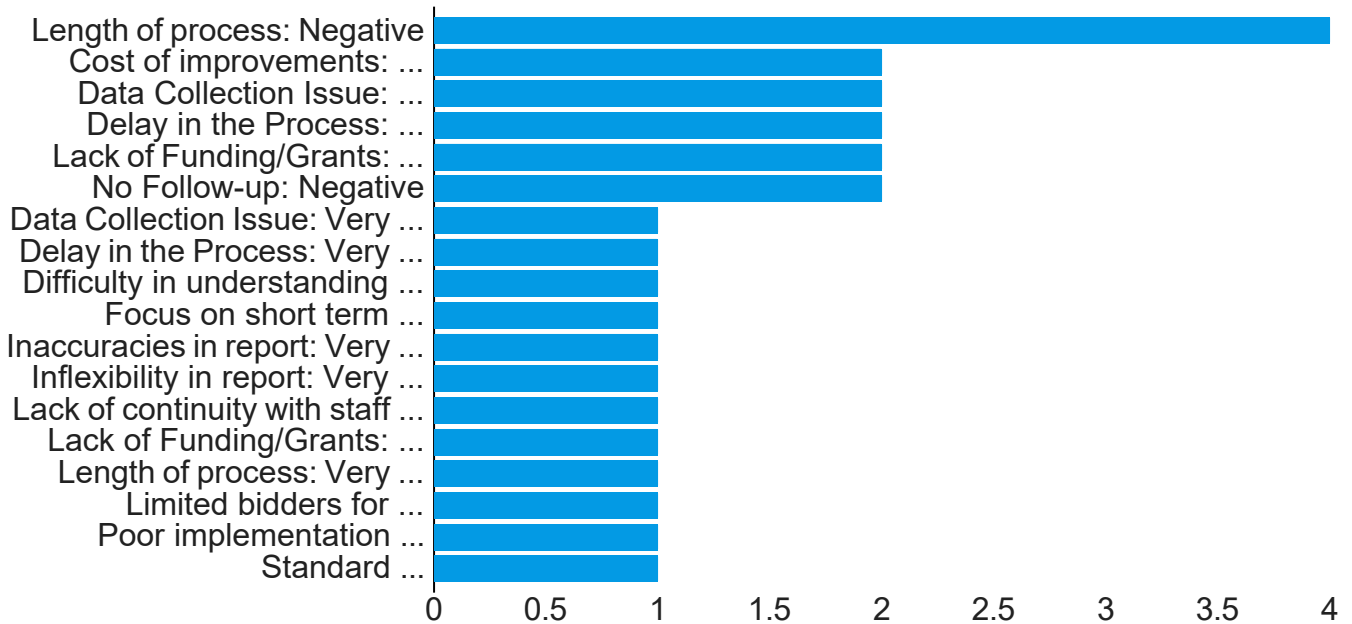
Field	Choice Count
Length of process: Negative	4
Cost of improvements: Negative	2
Data Collection Issue: Negative	2
Delay in the Process: Negative	2
Lack of Funding/Grants: Negative	2
No Follow-up: Negative	2
Data Collection Issue: Very Negative	1
Delay in the Process: Very Negative	1
Difficulty in understanding the process: Very Negative	1
Focus on short term payback: Very Negative	1
Inaccuracies in report: Very Negative	1
Inflexibility in report: Very Negative	1
Lack of continuity with staff changes: Negative	1
Lack of Funding/Grants: Very Negative	1

Length of process: Very Negative 1

Limited bidders for implementation: Negative 1

Poor implementation timeline: Very Negative 1

Standard Recommendations: Very Negative 1

Total 26

Q67 - Topic Sentiment Score
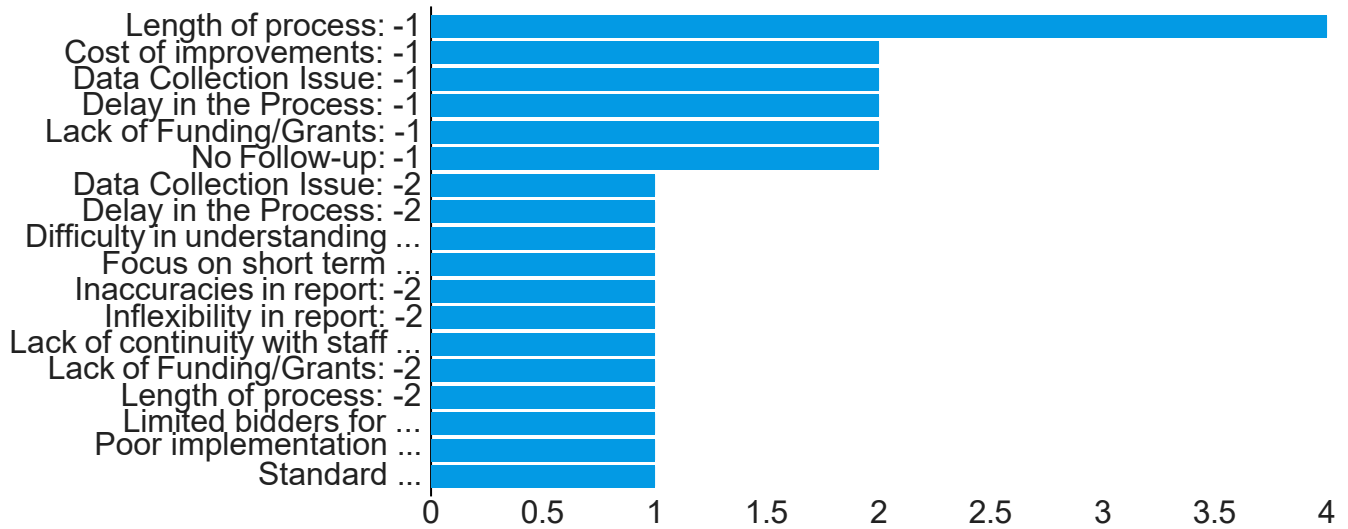
Field	Choice Count
Length of process: -1	4
Cost of improvements: -1	2
Data Collection Issue: -1	2
Delay in the Process: -1	2
Lack of Funding/Grants: -1	2
No Follow-up: -1	2
Data Collection Issue: -2	1
Delay in the Process: -2	1
Difficulty in understanding the process: -2	1
Focus on short term payback: -2	1

Inaccuracies in report: -2 — 1

Inflexibility in report: -2 — 1

Lack of continuity with staff changes: -1 — 1

Lack of Funding/Grants: -2 — 1

Length of process: -2 — 1

Limited bidders for implementation: -1 — 1

Poor implementation timeline: -2 — 1

Standard Recommendations: -2 — 1

Total — 26

Q14 - Actionability
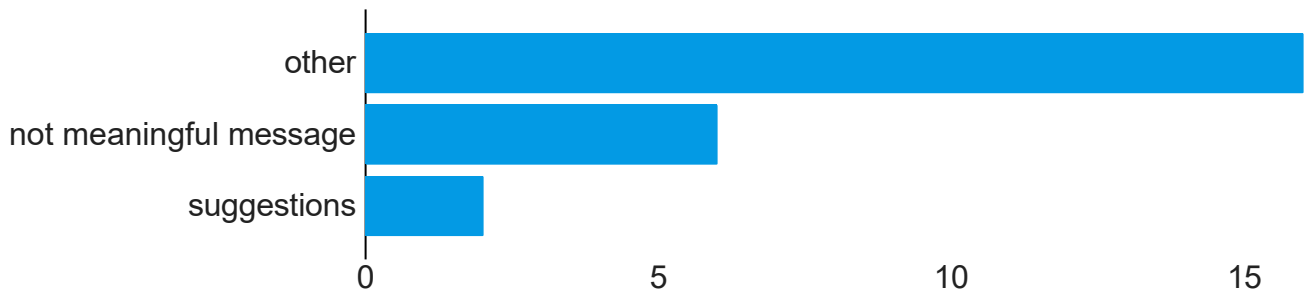
Field	Responses
Q14 - Actionability	24

Field	Choice Count
other	16
not meaningful message	6
suggestions	2
Total	24

Q14 - Sentiment Polarity

Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Q14 - Sentiment Polarity	0	0	0		0	0	24

Q14 - Sentiment Score

Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Q14 - Sentiment Score	-2	1	0		1	1	24

Q14 - Sentiment
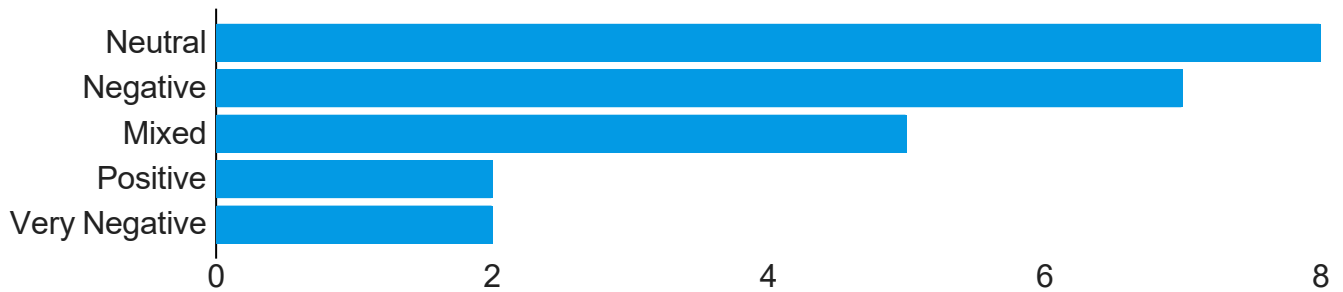
Field	Responses
Q14 - Sentiment	24

Field	Choice Count
Neutral	8
Negative	7
Mixed	5
Positive	2

| Very Negative | 2 |
| Total | 24 |

Q14 - Topic Sentiment Label
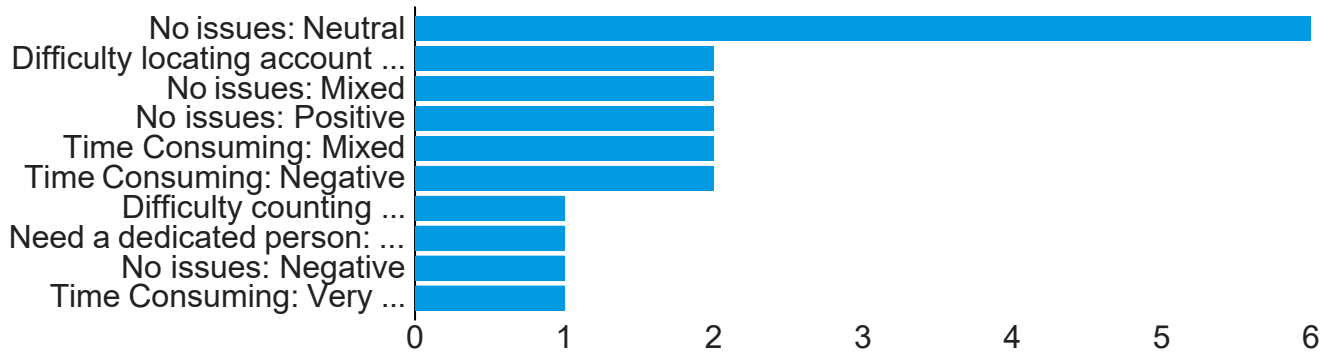
Field	Choice Count
No issues: Neutral	6
Difficulty locating account numbers: Negative	2
No issues: Mixed	2
No issues: Positive	2
Time Consuming: Mixed	2
Time Consuming: Negative	2
Difficulty counting equipment: Negative	1
Need a dedicated person: Very Negative	1
No issues: Negative	1
Time Consuming: Very Negative	1
Total	20

Q14 - Topic Sentiment Score
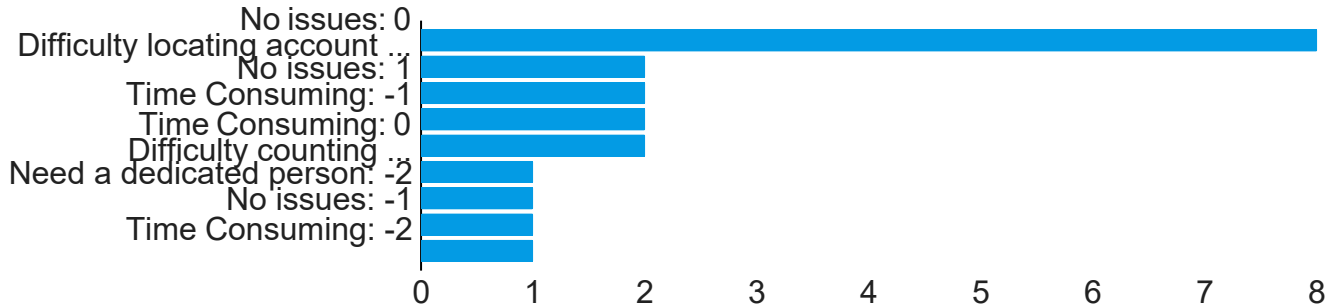
Field	Choice Count
No issues: 0	8
Difficulty locating account numbers: -1	2
No issues: 1	2
Time Consuming: -1	2
Time Consuming: 0	2
Difficulty counting equipment: -1	1
Need a dedicated person: -2	1
No issues: -1	1
Time Consuming: -2	1
Total	20

Q14 - Topics
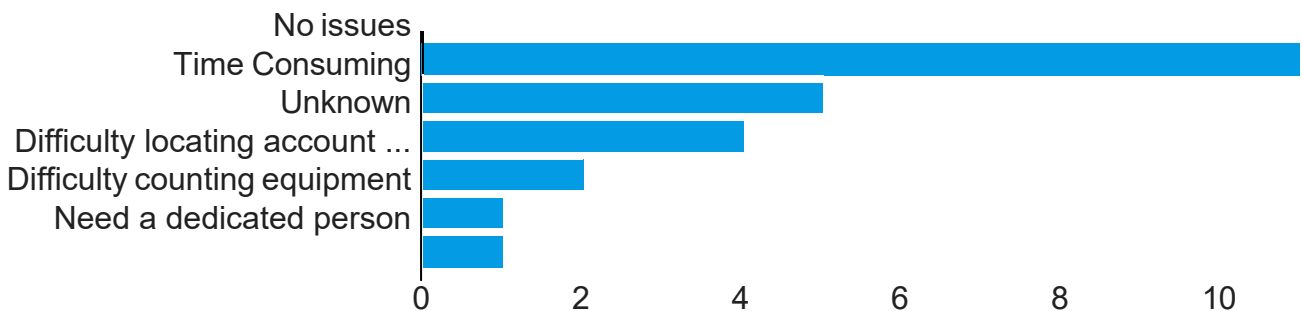
Field	Choice Count
No issues	11
Time Consuming	5
Unknown	4
Difficulty locating account numbers	2
Difficulty counting equipment	1
Need a dedicated person	1
Total	24

Q42 - Actionability
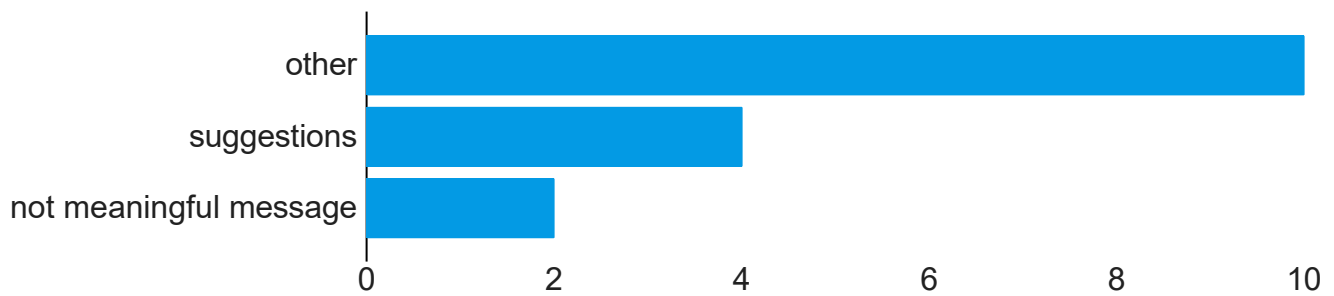
Field	Responses
Q42 - Actionability	16

Field	Choice Count
other	10
suggestions	4
not meaningful message	2
Total	16

Q42 - Sentiment Score

Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Q42 - Sentiment Score	-1	2	1	1	1	16

Q42 - Sentiment
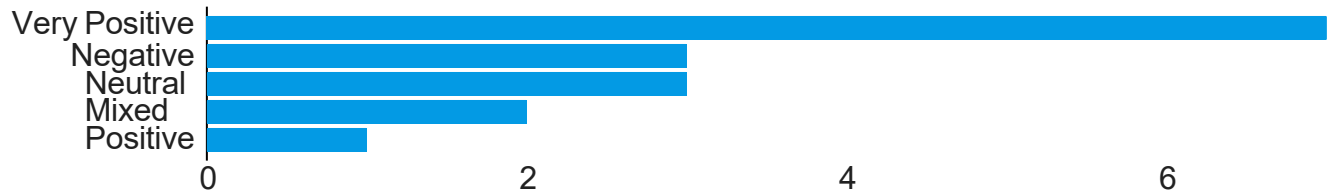
Field	Responses
Q42 - Sentiment	16

Field	Choice Count
Very Positive	7
Negative	3
Neutral	3
Mixed	2
Positive	1
Total	16

Q42 - Topic Sentiment Label
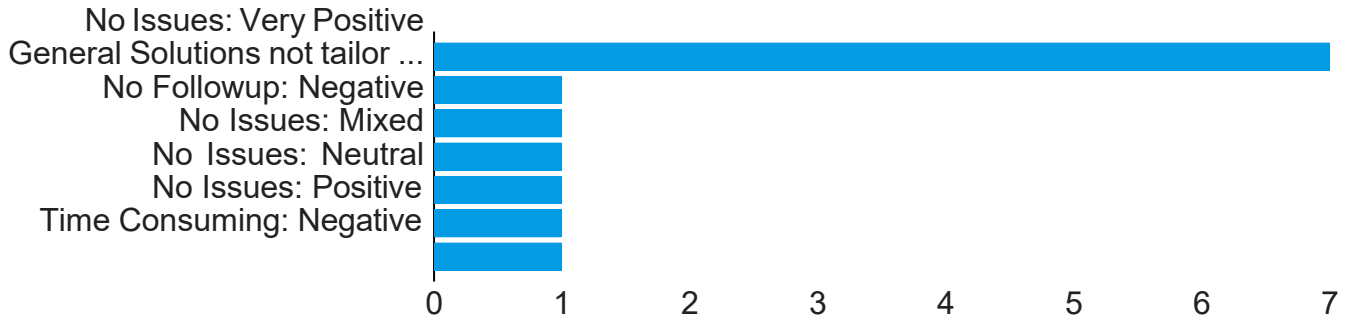
Field	Choice Count
No Issues: Very Positive	7
General Solutions not tailor made for the building: Mixed	1
No Followup: Negative	1
No Issues: Mixed	1
No Issues: Neutral	1
No Issues: Positive	1
Time Consuming: Negative	1
Total	13

Q42 - Topic Sentiment Score
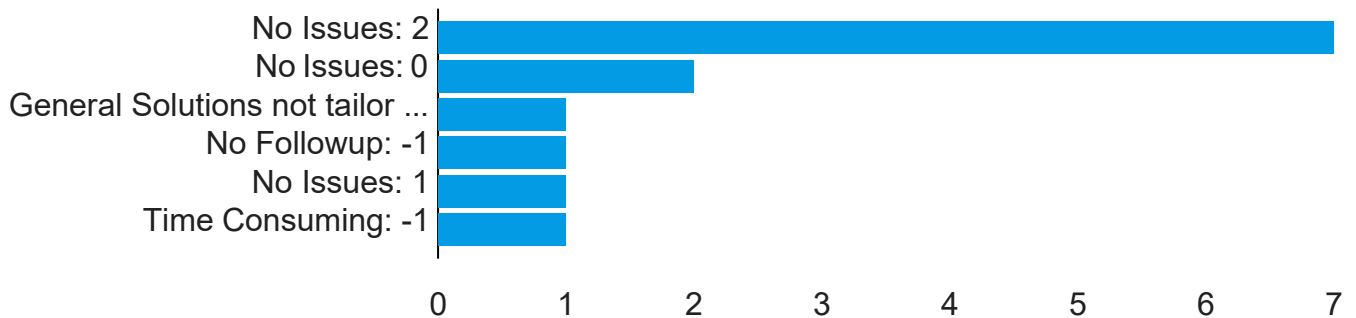
Field	Choice Count
No Issues: 2	7
No Issues: 0	2
General Solutions not tailor made for the building: 0	1
No Followup: -1	1
No Issues: 1	1
Time Consuming: -1	1
Total	13

Q42 - Topics
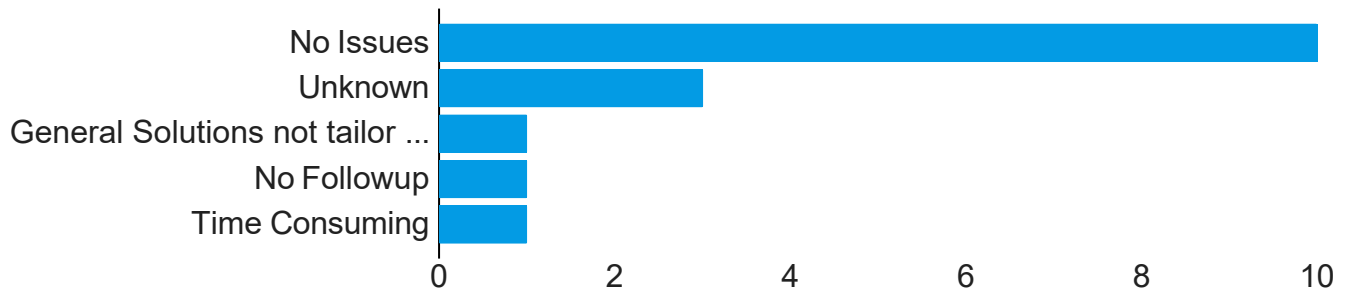
Field	Choice Count
No Issues	10
Unknown	3
General Solutions not tailor made for the building	1
No Followup	1
Time Consuming	1
Total	16

RUTGERS
Edward J. Bloustein School
of Planning and Public Policy

Q13 - Topics

No issues
Unknown
Time consuming
Difficulty because of a ...
Difficulty in collecting bills

0   2   4   6   8
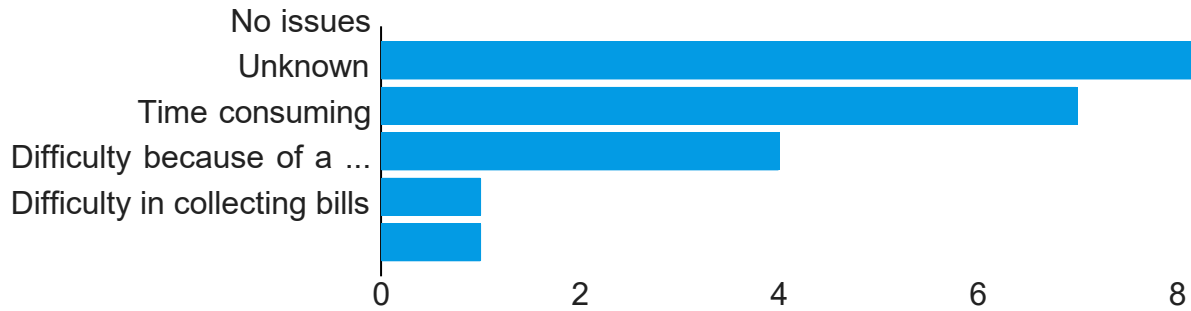
Field	Choice Count
No issues	9
Unknown	7
Time consuming	4
Difficulty because of a remote process	1
Difficulty in collecting bills	1
Total	22

Q13 - Sentiment

Negative
Neutral
Mixed
Very Positive
Positive

0   1   2   3   4   5   6
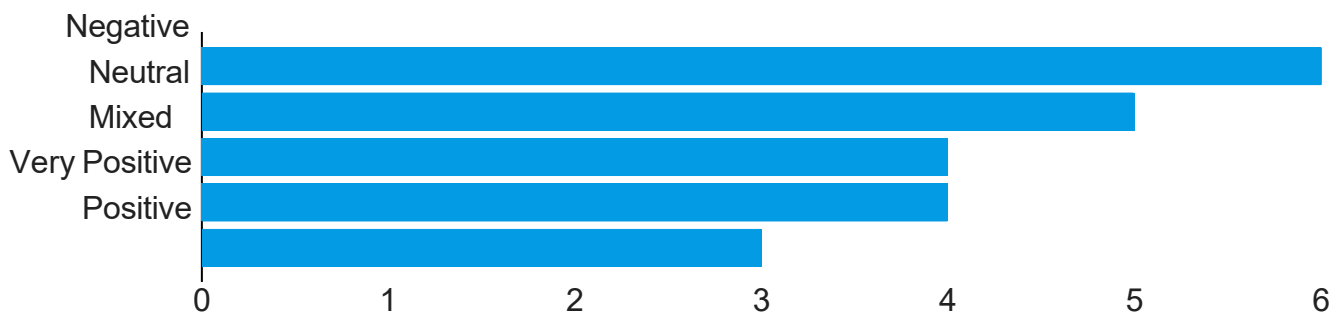
Field	Choice Count
Negative	6

Neutral	5
Mixed	4
Very Positive	4
Positive	3
Total	22

Q13 - Sentiment Score

Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Q13 - Sentiment Score	-1	2	0	1	1	22

Q13 - Sentiment Polarity

Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Q13 - Sentiment Polarity	0	0	0	0	0	22

Q13 - Topic Sentiment Label
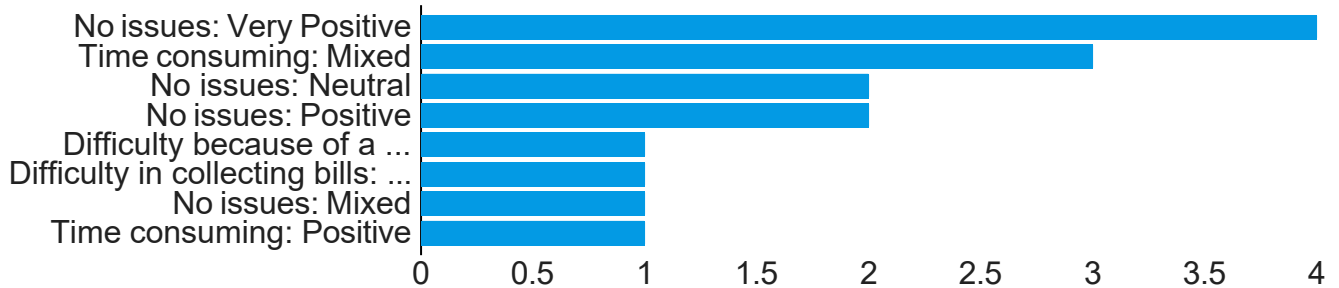
Field	Choice Count
No issues: Very Positive	4
Time consuming: Mixed	3

No issues: Neutral	2
No issues: Positive	2
Difficulty because of a remote process: Negative	1
Difficulty in collecting bills: Negative	1
No issues: Mixed	1
Time consuming: Positive	1
Total	15

Q13 - Topic Sentiment Score
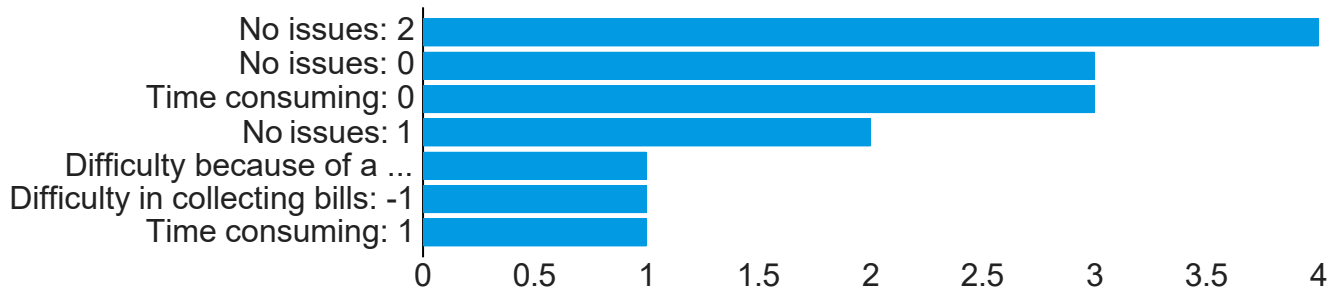
Field	Choice Count
No issues: 2	4
No issues: 0	3
Time consuming: 0	3
No issues: 1	2
Difficulty because of a remote process: -1	1
Difficulty in collecting bills: -1	1
Time consuming: 1	1
Total	15

Q13 - Actionability
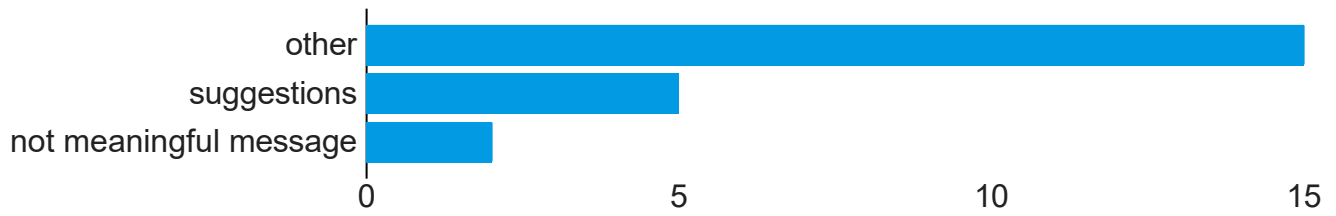
Field	Choice Count
other	15
suggestions	5
not meaningful message	2
Total	22

Q24 - Sentiment
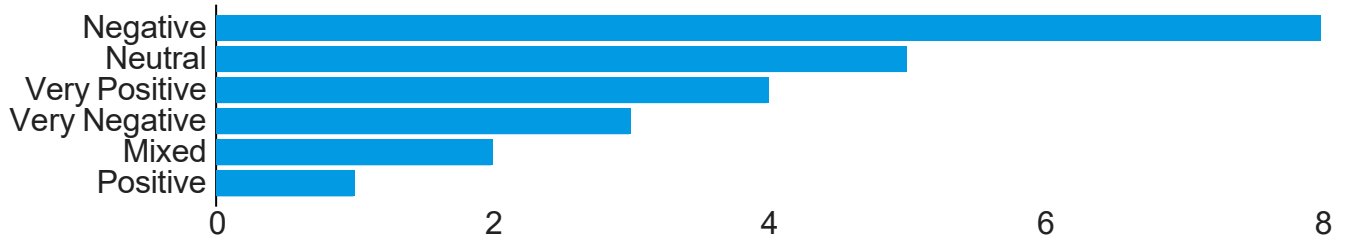
Field	Choice Count
Negative	8
Neutral	5
Very Positive	4
Very Negative	3
Mixed	2
Positive	1
Total	23

Q24 - Sentiment Score

Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Q24 - Sentiment Score	-2	2	0	1	2	23

Q24 - Sentiment Polarity

Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Q24 - Sentiment Polarity	0	0	0	0	0	23

Q24 - Actionability
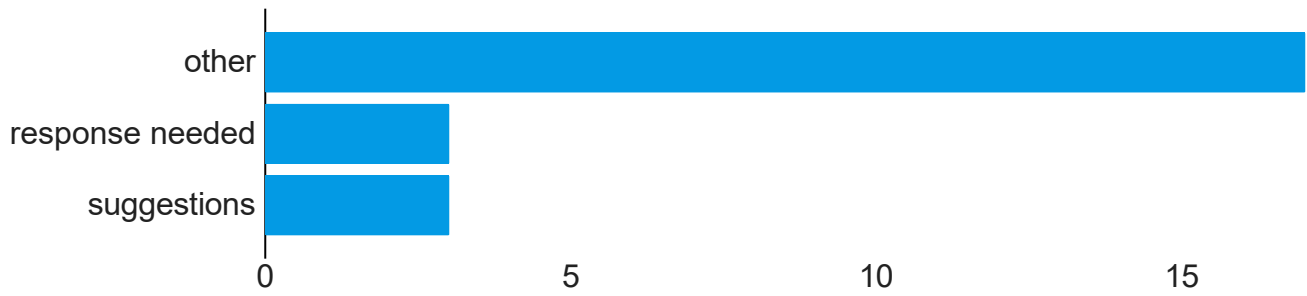
Field	Choice Count
other	17
response needed	3
suggestions	3
Total	23

Q36 - Topics
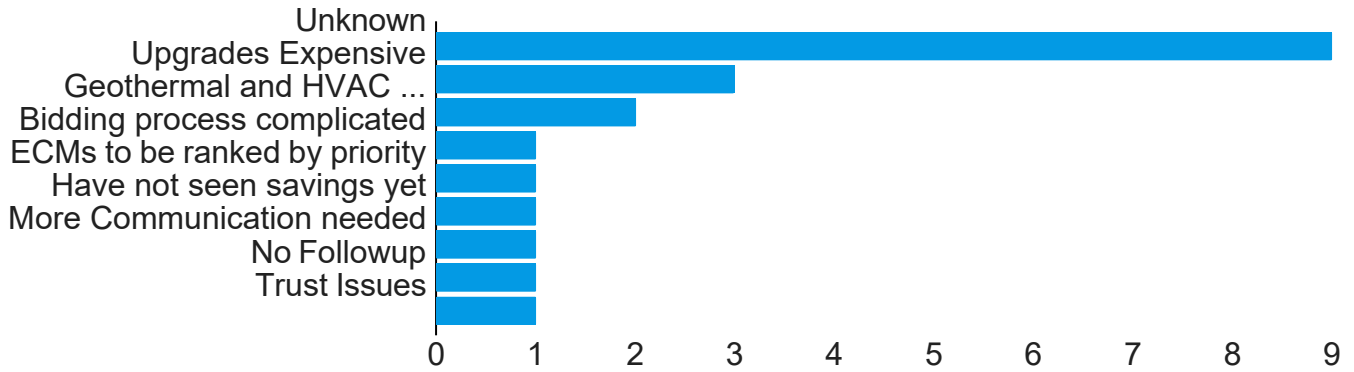
Field	Choice Count
Unknown	9
Upgrades Expensive	3
Geothermal and HVAC Upgrades too expensive	2
Bidding process complicated	1
ECMs to be ranked by priority	1
Have not seen savings yet	1
More Communication needed	1
No Followup	1
Trust Issues	1
Total	20

Q36 - Sentiment

Field	Choice Count
Negative	6
Neutral	5
Very Negative	5
Mixed	2
Total	18

Q36 - Sentiment Score

Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Q36 - Sentiment Score	-2	0	-1	1	1	18

Q36 - Sentiment Polarity

Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Q36 - Sentiment Polarity	0	0	0	0	0	18

Q36 - Topic Sentiment Label
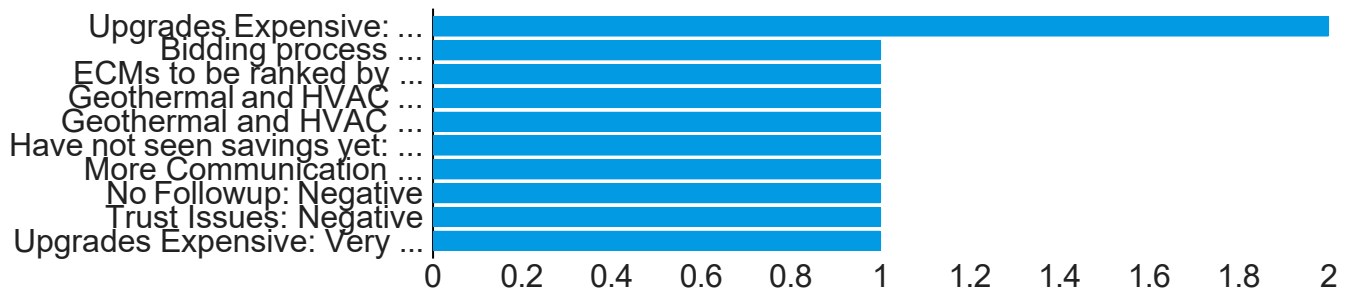
Field	Choice Count

Upgrades Expensive: Negative	2
Bidding process complicated: Negative	1
ECMs to be ranked by priority: Very Negative	1
Geothermal and HVAC Upgrades too expensive: Negative	1
Geothermal and HVAC Upgrades too expensive: Very Negative	1
Have not seen savings yet: Mixed	1
More Communication needed: Negative	1
No Followup: Negative	1
Trust Issues: Negative	1
Upgrades Expensive: Very Negative	1
Total	11

Q36 - Topic Sentiment Score
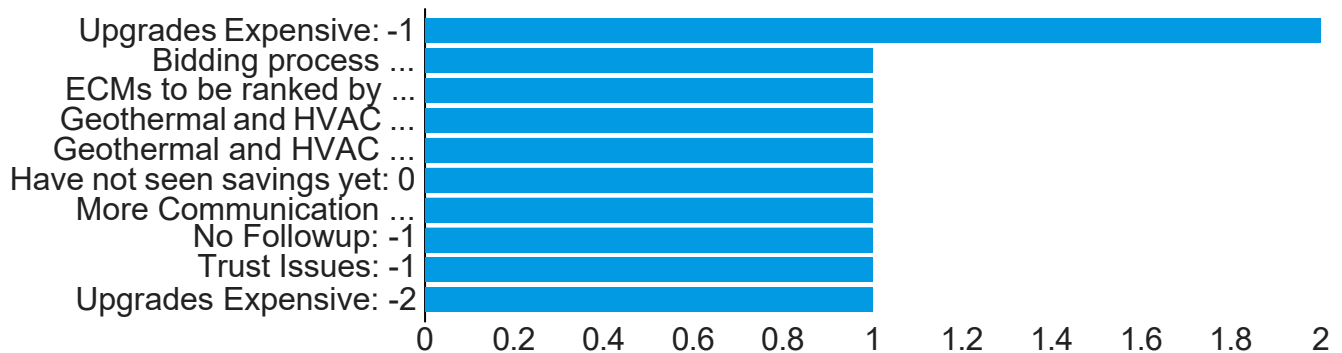
Field	Choice Count
Upgrades Expensive: -1	2
Bidding process complicated: -1	1
ECMs to be ranked by priority: -2	1
Geothermal and HVAC Upgrades too expensive: -1	1
Geothermal and HVAC Upgrades too expensive: -2	1
Have not seen savings yet: 0	1
More Communication needed: -1	1

No Followup: -1   1

Trust Issues: -1   1

Upgrades Expensive: -2   1

Total   11

Q36 - Actionability
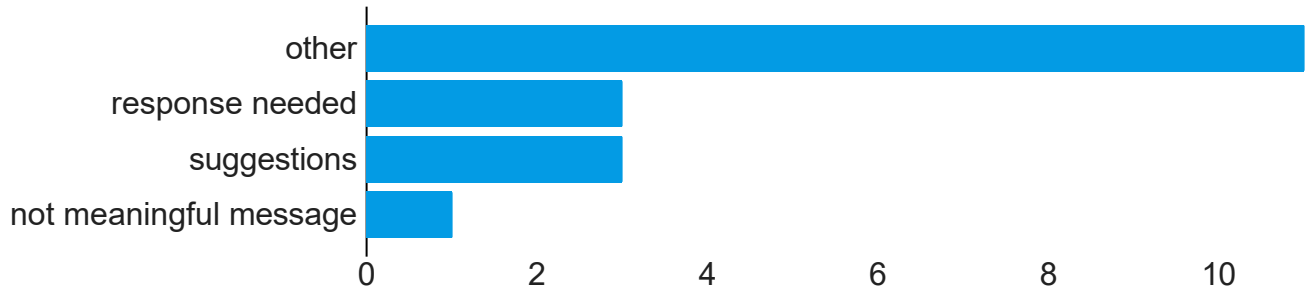
Field	Choice Count
other	11
response needed	3
suggestions	3
not meaningful message	1
Total	18

Q68 - Topics
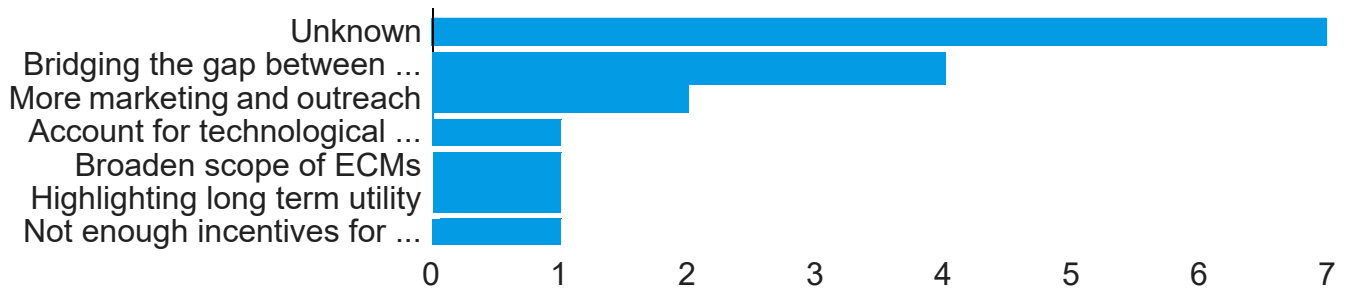
Field	Choice Count
Unknown	7
Bridging the gap between the audit and implementation	4

More marketing and outreach	2
Account for technological advances	1
Broaden scope of ECMs	1
Highlighting long term utility	1
Not enough incentives for cost-intensive ECMs	1
Total	17

Q68 - Sentiment
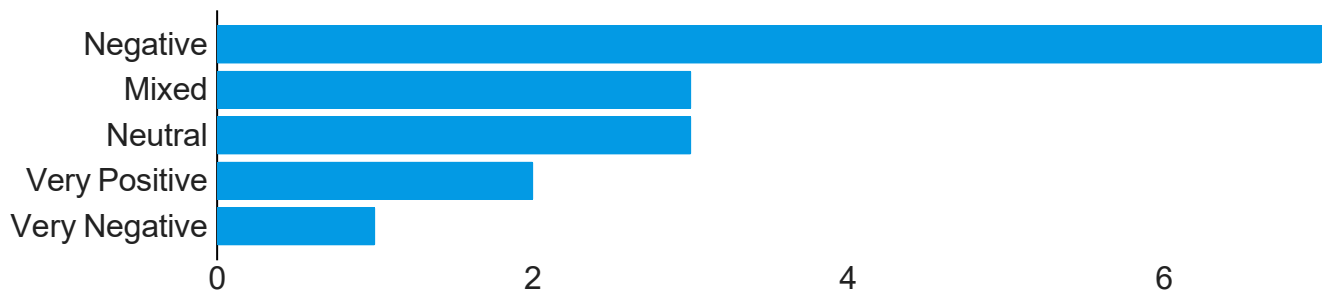
Field	Choice Count
Negative	7
Mixed	3
Neutral	3
Very Positive	2
Very Negative	1
Total	16

Q68 - Sentiment Score

Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Q68 - Sentiment Score	-2	2	0	1	1	16

Q68 - Sentiment Polarity

Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Q68 - Sentiment Polarity	0	0	0	0	0	16

Q68 - Topic Sentiment Label
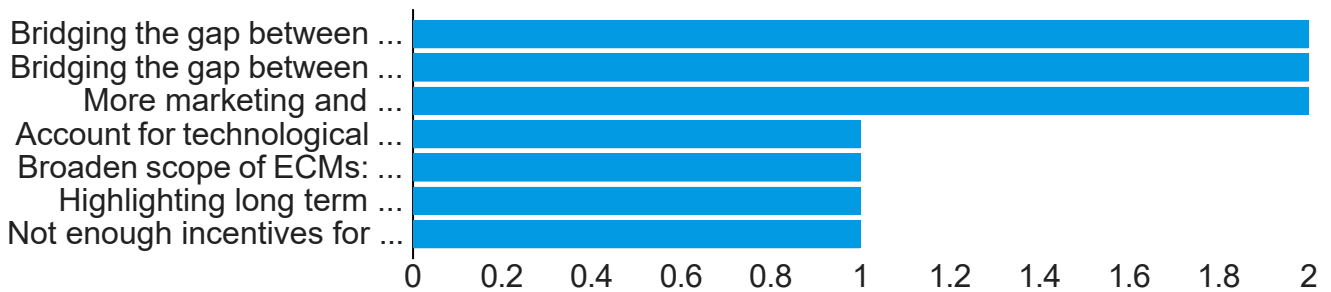
Field	Choice Count
Bridging the gap between the audit and implementation: Mixed	2
Bridging the gap between the audit and implementation: Negative	2
More marketing and outreach: Negative	2
Account for technological advances: Very Negative	1
Broaden scope of ECMs: Negative	1
Highlighting long term utility: Mixed	1
Not enough incentives for cost-intensive ECMs: Negative	1
Total	10

Q68 - Topic Sentiment Score
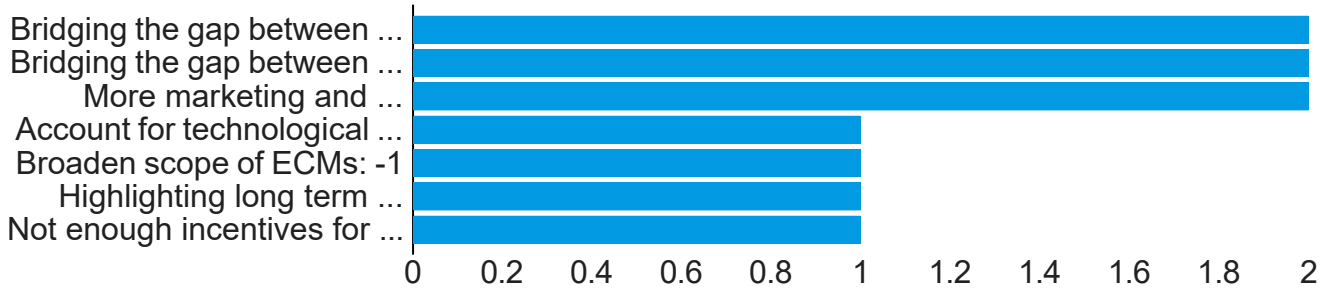
Field	Choice Count
Bridging the gap between the audit and implementation: -1	2
Bridging the gap between the audit and implementation: 0	2
More marketing and outreach: -1	2
Account for technological advances: -2	1
Broaden scope of ECMs: -1	1
Highlighting long term utility: 0	1
Not enough incentives for cost-intensive ECMs: -1	1
Total	10

Q68 - Actionability
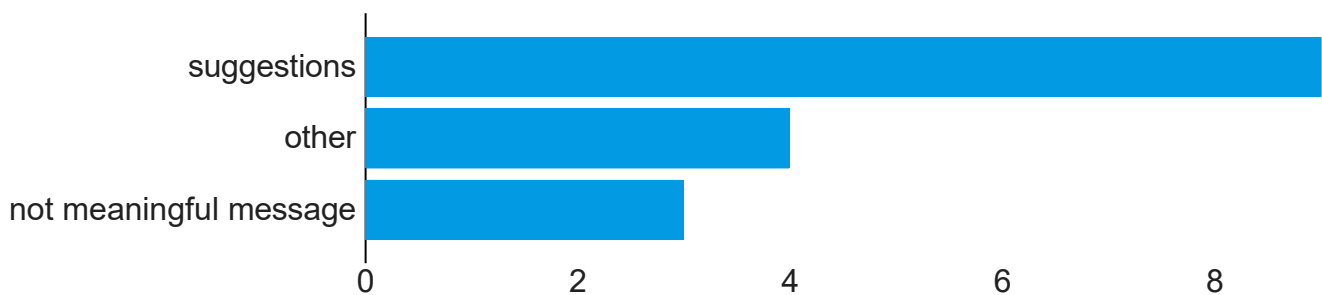
Field	Choice Count
suggestions	9
other	4
not meaningful message	3
Total	16

Q30 - Sentiment Polarity

Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Q30 - Sentiment Polarity	0	0	0	0	0	23

Q30 - Sentiment Score

Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Q30 - Sentiment Score	-1	2	0	1	1	23

Q30 - Sentiment
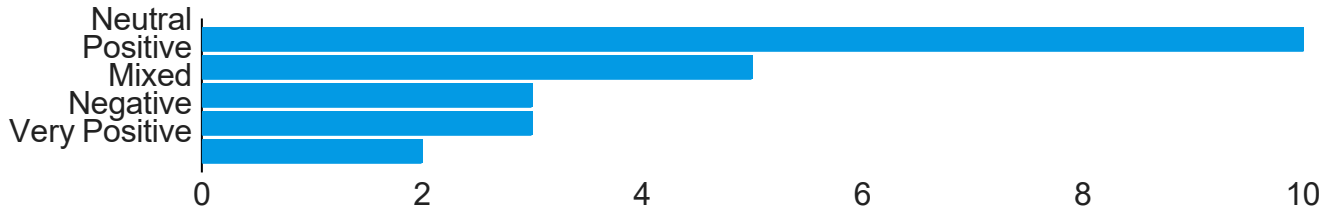
Field	Responses
Q30 - Sentiment	23

Field	Choice Count
Neutral	10
Positive	5
Mixed	3
Negative	3
Very Positive	2
Total	23

Q30 - Topics
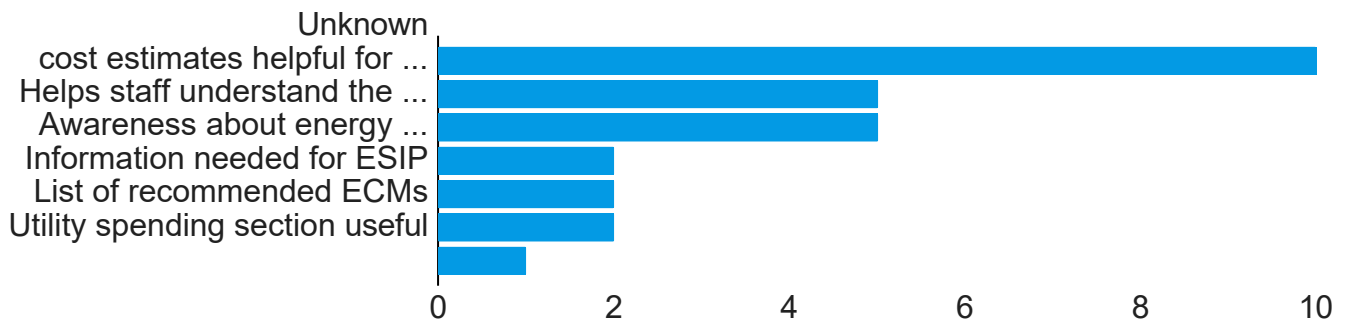
Field	Choice Count
Unknown	10
cost estimates helpful for budgeting and financing	5
Helps staff understand the facilities	5
Awareness about energy efficiency	2
Information needed for ESIP	2
List of recommended ECMs	2
Utility spending section useful	1
Total	27

Q30 - Actionability

Field	Responses
Q30 - Actionability	23

Field	Choice Count
other	11
suggestions	7
not meaningful message	5
Total	23

Q30 - Topic Sentiment Label
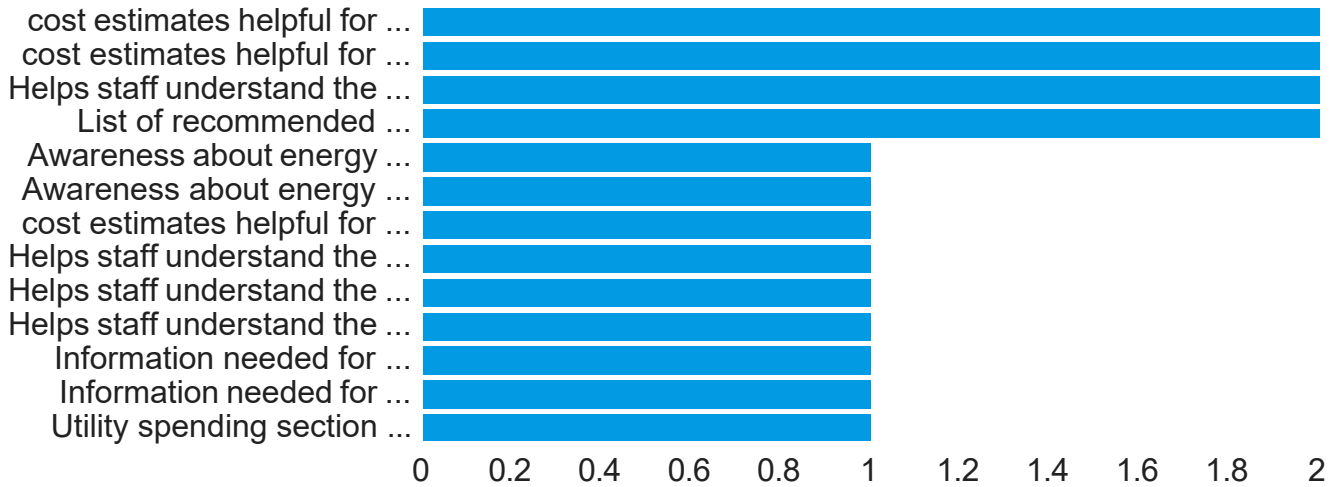
Field	Choice Count
cost estimates helpful for budgeting and financing: Neutral	2
cost estimates helpful for budgeting and financing: Very Positive	2
Helps staff understand the facilities: Negative	2
List of recommended ECMs: Neutral	2
Awareness about energy efficiency: Mixed	1
Awareness about energy efficiency: Positive	1
cost estimates helpful for budgeting and financing: Mixed	1
Helps staff understand the facilities: Neutral	1
Helps staff understand the facilities: Positive	1
Helps staff understand the facilities: Very Positive	1
Information needed for ESIP: Neutral	1
Information needed for ESIP: Positive	1
Utility spending section useful: Mixed	1
Total	17

Q30 - Topic Sentiment Score
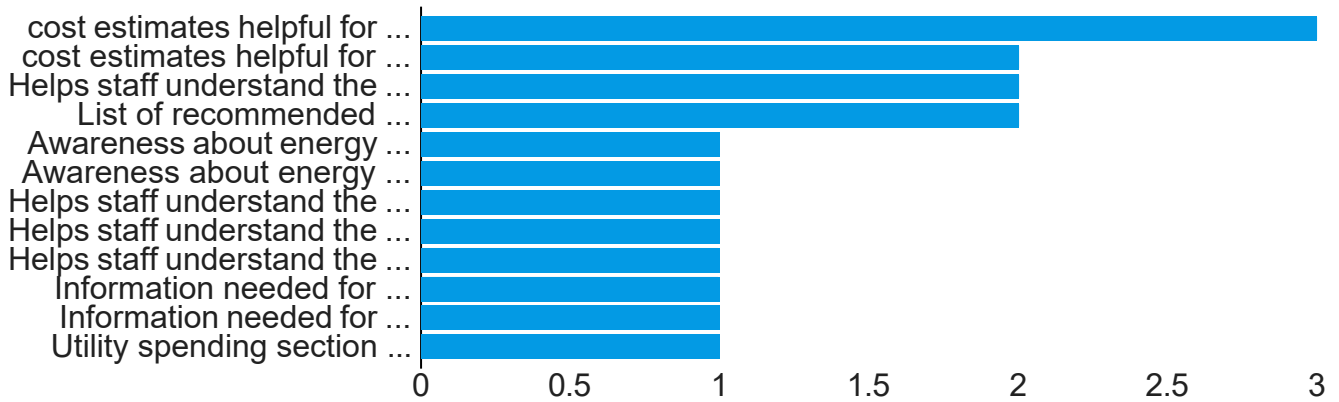
Field	Choice Count
cost estimates helpful for budgeting and financing: 0	3
cost estimates helpful for budgeting and financing: 2	2
Helps staff understand the facilities: -1	2
List of recommended ECMs: 0	2
Awareness about energy efficiency: 0	1
Awareness about energy efficiency: 1	1
Helps staff understand the facilities: 0	1
Helps staff understand the facilities: 1	1
Helps staff understand the facilities: 2	1
Information needed for ESIP: 0	1
Information needed for ESIP: 1	1
Utility spending section useful: 0	1
Total	17

Q34 - Sentiment Polarity

Field	Min	Max	Mean	Standard Deviation	Variance	Responses

| Q34 - Sentiment Polarity | 0 | 0 | 0 | 0 | 0 | 17 |

Q34 - Sentiment Score

Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Q34 - Sentiment Score	-2	1	0	1	0	17

Q34 - Sentiment
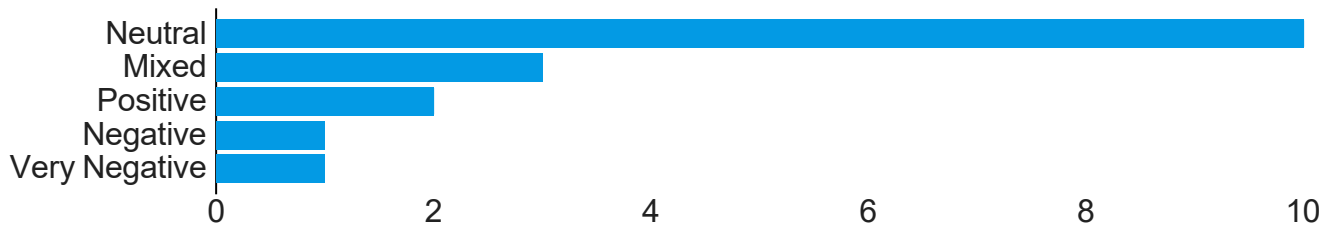
Field	Responses
Q34 - Sentiment	17

Field	Choice Count
Neutral	10
Mixed	3
Positive	2
Negative	1
Very Negative	1
Total	17

Q34 - Topics
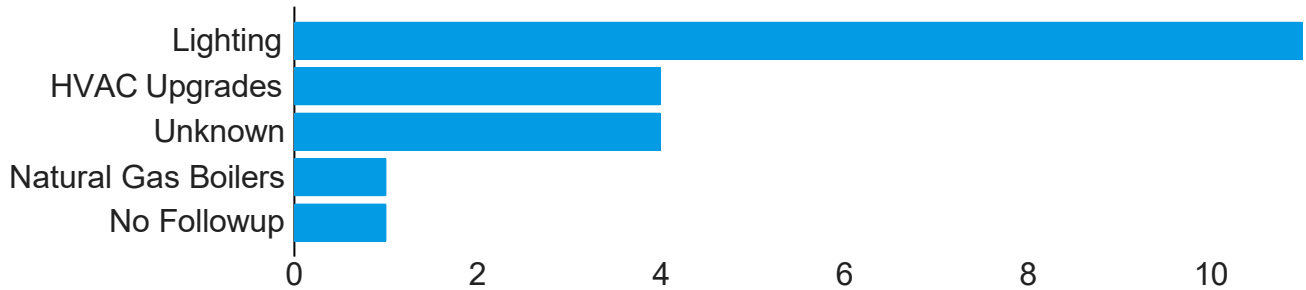
Field	Choice Count
Lighting	11
HVAC Upgrades	4
Unknown	4
Natural Gas Boilers	1
No Followup	1
Total	21

Q34 - Actionability
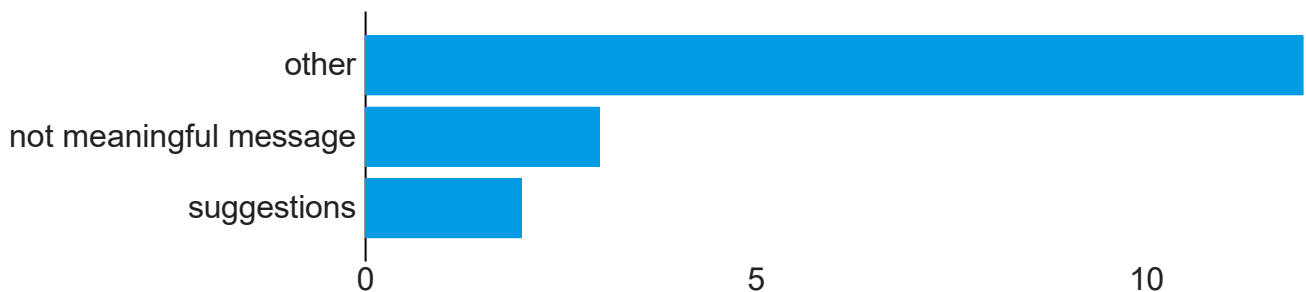
Field	Responses
Q34 - Actionability	17

Field	Choice Count
other	12
not meaningful message	3
suggestions	2
Total	17

Q34 - Topic Sentiment Label
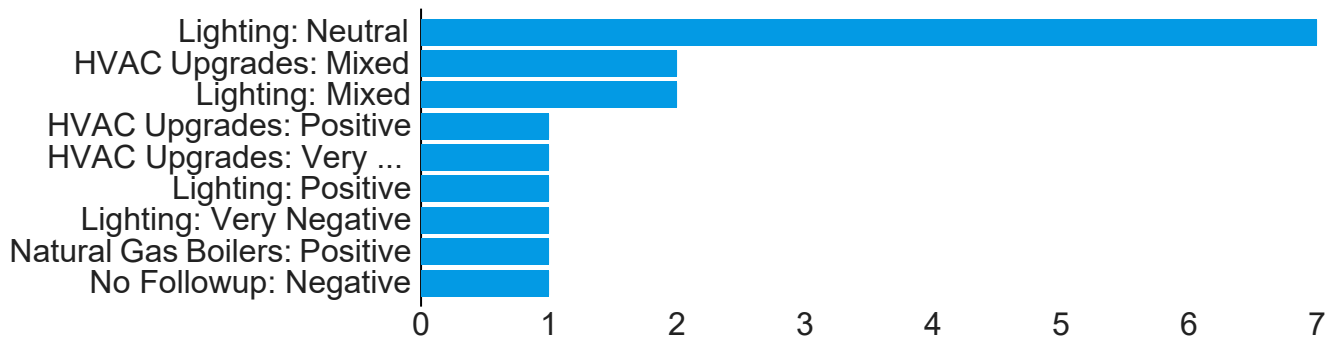
Field	Choice Count
Lighting: Neutral	7
HVAC Upgrades: Mixed	2
Lighting: Mixed	2
HVAC Upgrades: Positive	1
HVAC Upgrades: Very Negative	1
Lighting: Positive	1
Lighting: Very Negative	1
Natural Gas Boilers: Positive	1
No Followup: Negative	1
Total	17

Q34 - Topic Sentiment Score
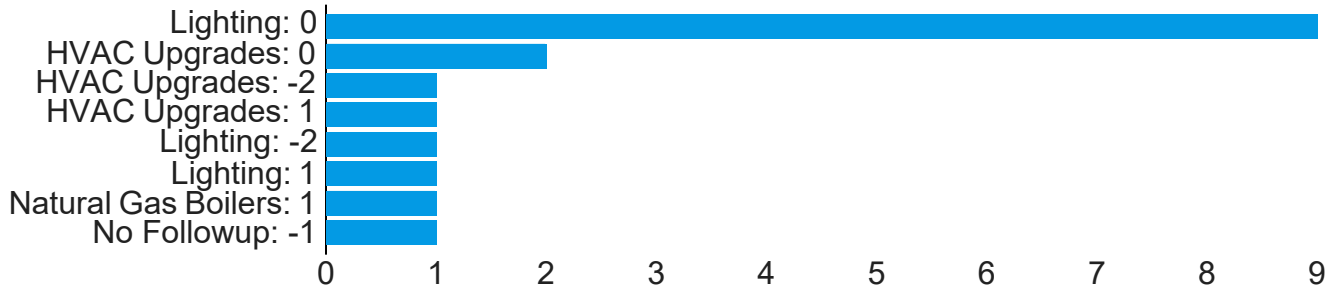
Field	Choice Count
Lighting: 0	9
HVAC Upgrades: 0	2
HVAC Upgrades: -2	1
HVAC Upgrades: 1	1
Lighting: -2	1
Lighting: 1	1
Natural Gas Boilers: 1	1
No Followup: -1	1
Total	17

Q29 - Sentiment Polarity

Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Q29 - Sentiment Polarity	0	0	0	0	0	16

Q29 - Sentiment Score

Field	Min	Max	Mean	Standard Deviation	Variance	Responses

Q29 - Sentiment Score   -1   1   0   0   0   16

Q29 - Sentiment
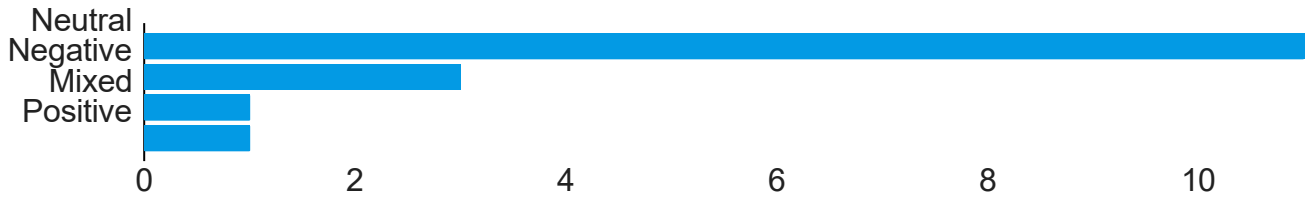
Field	Responses
Q29 - Sentiment	16

Field	Choice Count
Neutral	11
Negative	3
Mixed	1
Positive	1
Total	16

Q29 - Topics
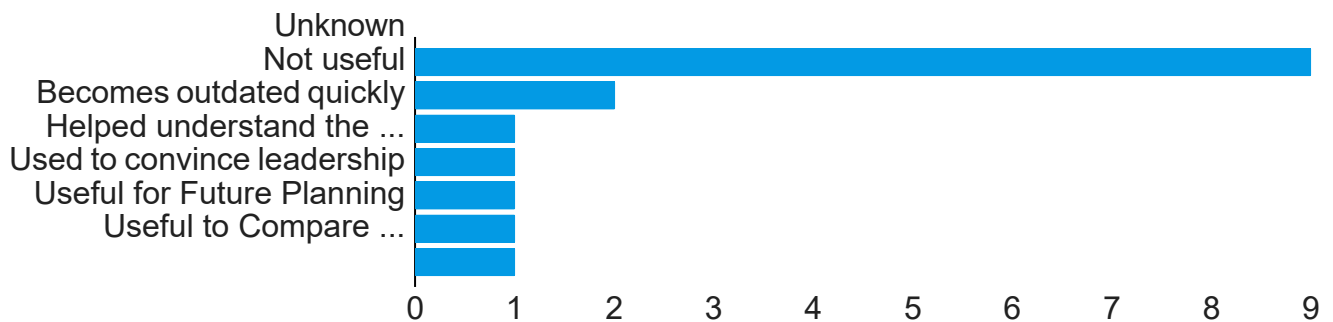
Field	Choice Count
Unknown	9
Not useful	2
Becomes outdated quickly	1
Helped understand the building performance	1
Used to convince leadership	1
Useful for Future Planning	1
Useful to Compare Different Options	1
Total	16

Q29 - Actionability
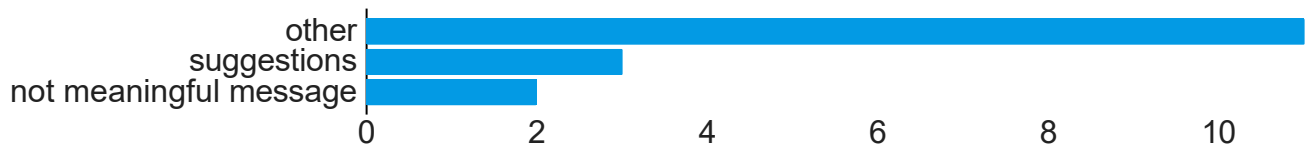
Field	Responses
Q29 - Actionability	16

Field	Choice Count
other	11
suggestions	3
not meaningful message	2
Total	16

Q29 - Topic Sentiment Label
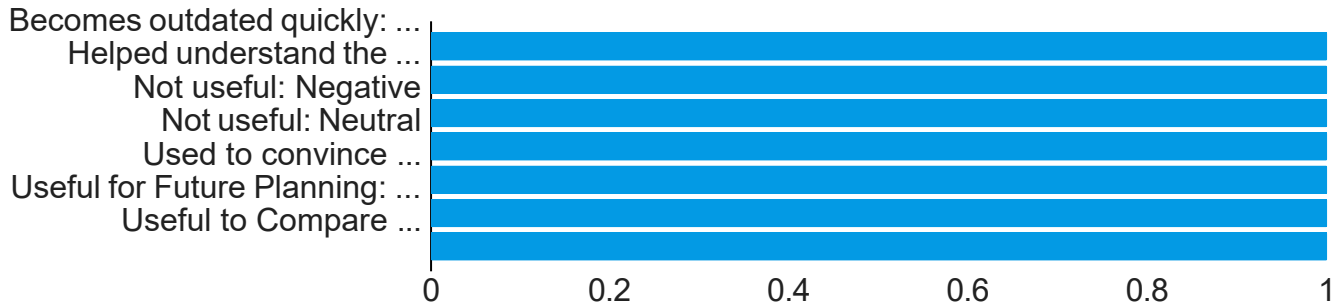
Field	Choice Count
Becomes outdated quickly: Mixed	1
Helped understand the building performance: Negative	1
Not useful: Negative	1
Not useful: Neutral	1
Used to convince leadership: Negative	1
Useful for Future Planning: Neutral	1
Useful to Compare Different Options: Neutral	1
Total	7

Q29 - Topic Sentiment Score
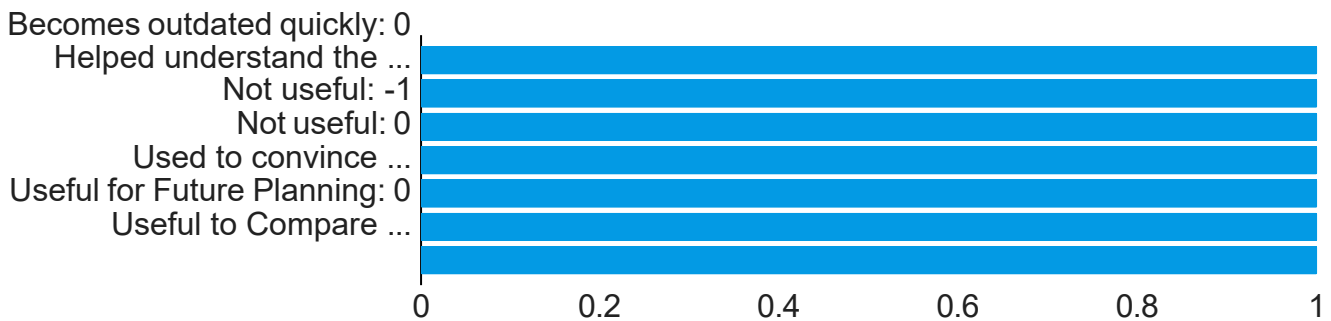
Field	Choice Count
Becomes outdated quickly: 0	1
Helped understand the building performance: -1	1
Not useful: -1	1
Not useful: 0	1
Used to convince leadership: -1	1
Useful for Future Planning: 0	1
Useful to Compare Different Options: 0	1
Total	7

Q16 - Actionability
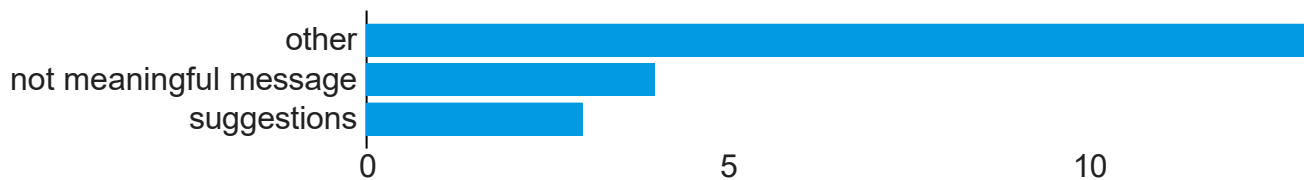
Field	Responses
Q16 - Actionability	20

Field	Choice Count
other	13
not meaningful message	4
suggestions	3
Total	20

Q16 - Sentiment Polarity

Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Q16 - Sentiment Polarity	0	0	0	0	0	20

Q16 - Sentiment Score

Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Q16 - Sentiment Score	-2	2	0	1	1	20

Q16 - Sentiment
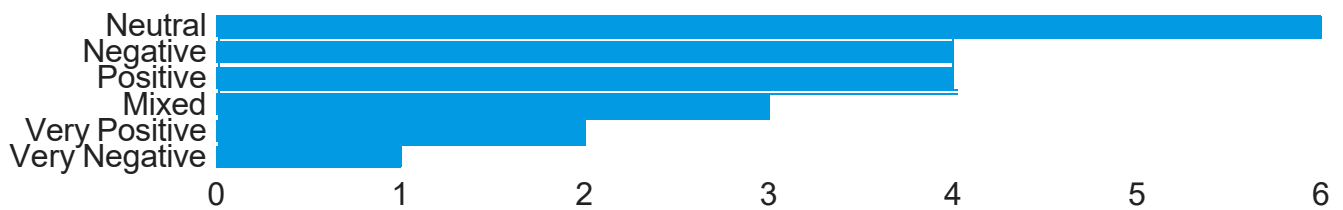
Field	Responses
Q16 - Sentiment	20

Field	Choice Count
Neutral	6
Negative	4
Positive	4
Mixed	3
Very Positive	2
Very Negative	1
Total	20

Q16 - Topic Sentiment Label
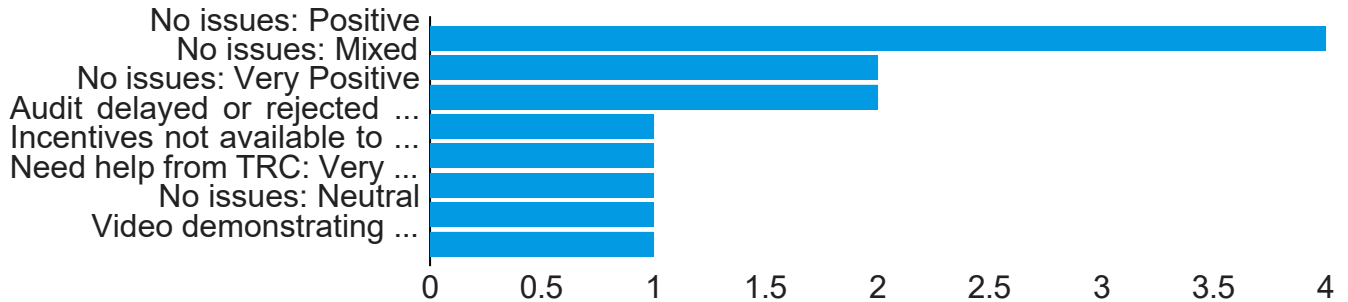
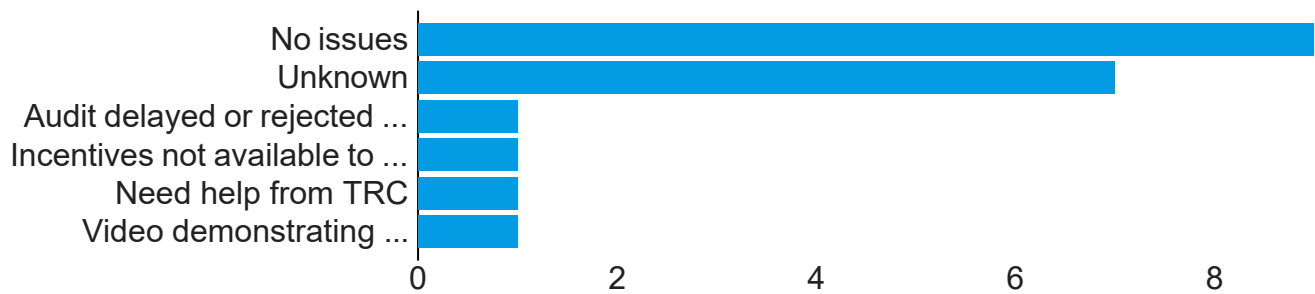| Field	Choice Count
No issues: Positive	4
No issues: Mixed	2
No issues: Very Positive	2
Audit delayed or rejected by TRC based on costs: Mixed	1
Incentives not available to private schools: Negative	1
Need help from TRC: Very Negative	1
No issues: Neutral	1
Video demonstrating process of collecting data: Negative	1
Total	13

Q16 - Topic Sentiment Score
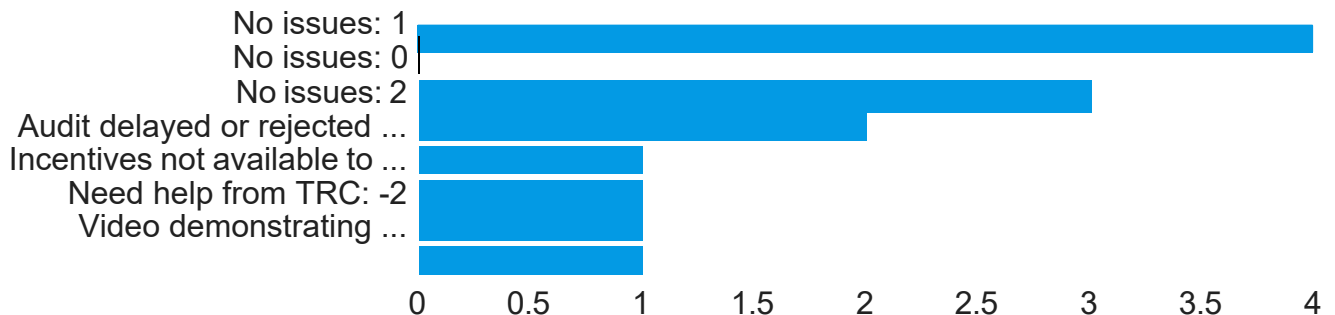
Field	Choice Count
No issues: 1	4
No issues: 0	3
No issues: 2	2
Audit delayed or rejected by TRC based on costs: 0	1
Incentives not available to private schools: -1	1
Need help from TRC: -2	1
Video demonstrating process of collecting data: -1	1
Total	13

Q16 - Topics

Field	Choice Count
No issues	9
Unknown	7
Audit delayed or rejected by TRC based on costs	1
Incentives not available to private schools	1
Need help from TRC	1
Video demonstrating process of collecting data	1
Total	20

Q27 - Actionability
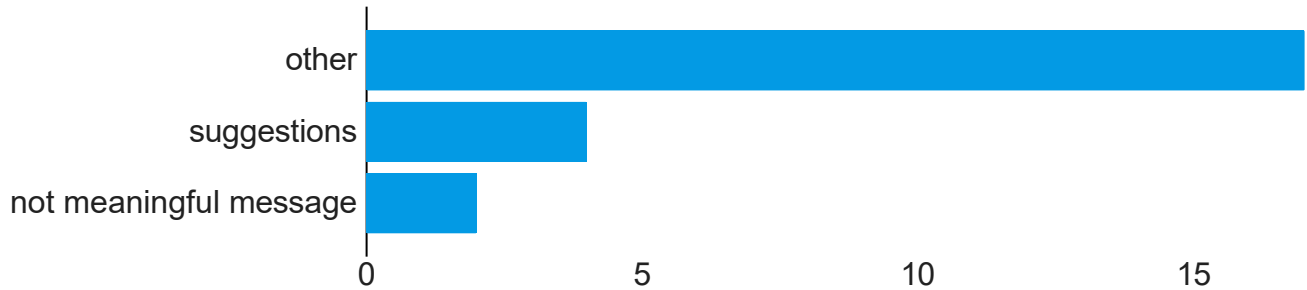
Field	Responses
Q27 - Actionability	23

Field	Choice Count
other	17
suggestions	4
not meaningful message	2
Total	23

Q27 - Sentiment Polarity

Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Q27 - Sentiment Polarity	0	0	0	0	0	23

Q27 - Sentiment Score

Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Q27 - Sentiment Score	-2	2	0	1	1	23

Q27 - Sentiment
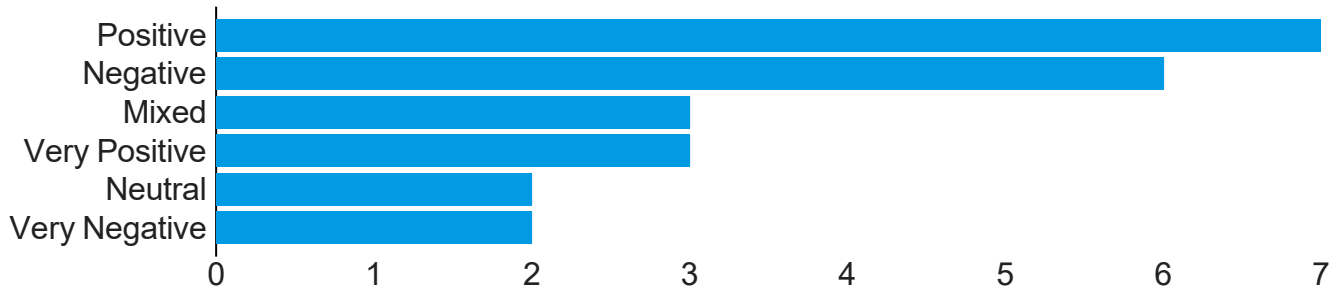
Field	Responses
Q27 - Sentiment	23

Field	Choice Count
Positive	7
Negative	6
Mixed	3
Very Positive	3
Neutral	2
Very Negative	2
Total	23

## Q27 - Topic Sentiment Label
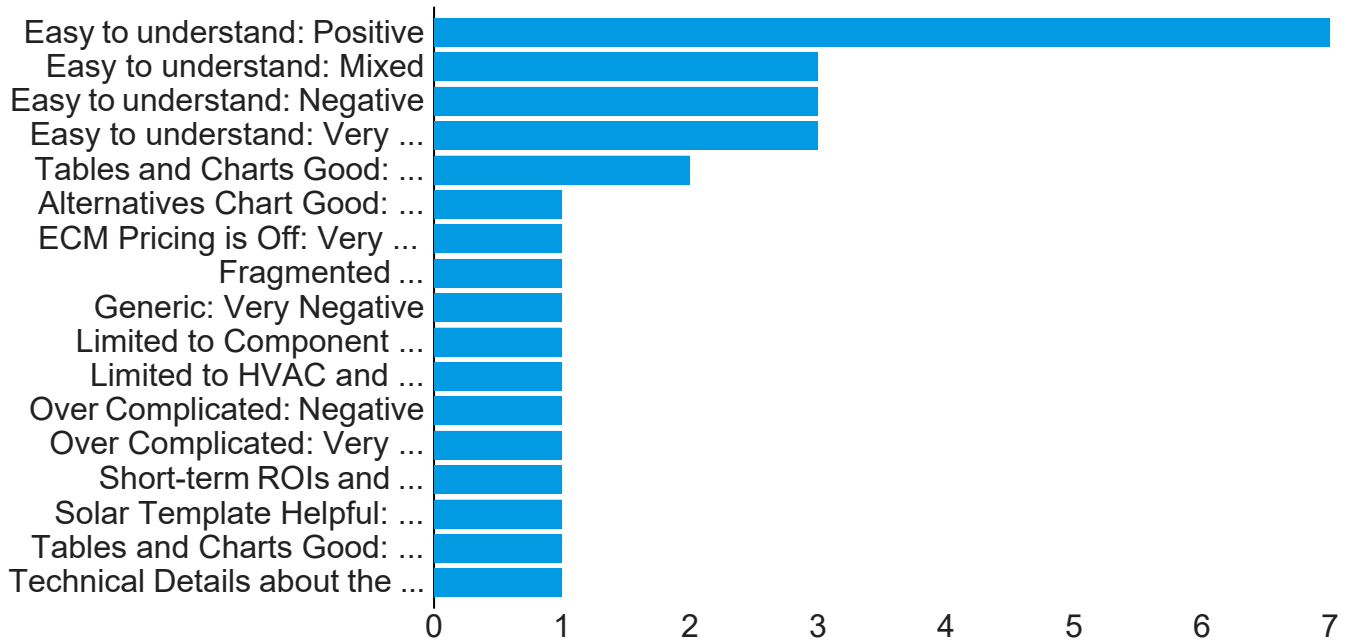
Field	Choice Count
Easy to understand: Positive	7
Easy to understand: Mixed	3
Easy to understand: Negative	3
Easy to understand: Very Positive	3
Tables and Charts Good: Negative	2
Alternatives Chart Good: Very Positive	1
ECM Pricing is Off: Very Negative	1
Fragmented Recommendations and Limited ECMs: Very Negative	1
Generic: Very Negative	1
Limited to Component Replacement: Mixed	1
Limited to HVAC and Lighting: Mixed	1
Over Complicated: Negative	1
Over Complicated: Very Negative	1
Short-term ROIs and Exclusion of Holistic ECMs: Very Negative	1

|	
Solar Template Helpful: Mixed	1
Tables and Charts Good: Very Positive	1
Technical Details about the Numbers: Negative	1
Total	30

Q27 - Topic Sentiment Score
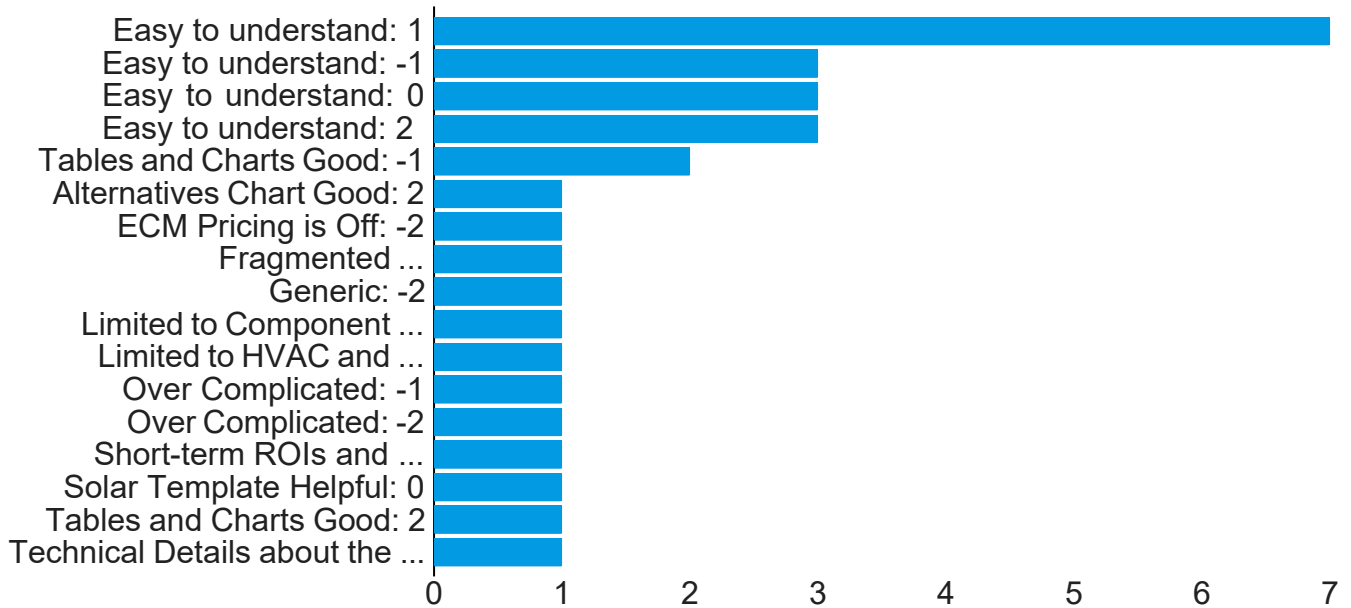
Field	Choice Count
Easy to understand: 1	7
Easy to understand: -1	3
Easy to understand: 0	3
Easy to understand: 2	3
Tables and Charts Good: -1	2
Alternatives Chart Good: 2	1
ECM Pricing is Off: -2	1
Fragmented Recommendations and Limited ECMs: -2	1
Generic: -2	1

|	
Limited to Component Replacement: 0	1
Limited to HVAC and Lighting: 0	1
Over Complicated: -1	1
Over Complicated: -2	1
Short-term ROIs and Exclusion of Holistic ECMs: -2	1
Solar Template Helpful: 0	1
Tables and Charts Good: 2	1
Technical Details about the Numbers: -1	1
Total	30

Q27 - Topics
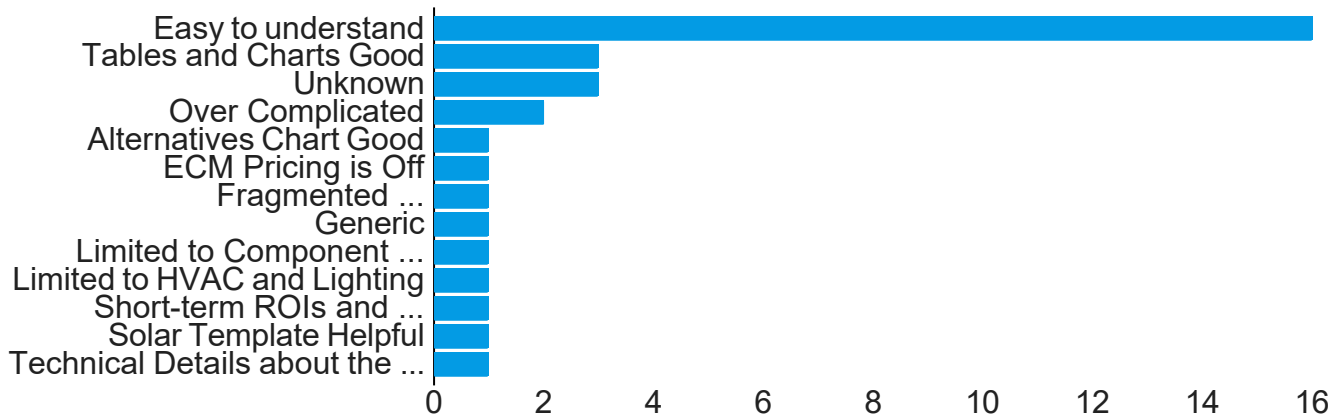
Field	Choice Count
Easy to understand	16
Tables and Charts Good	3
Unknown	3
Over Complicated	2
Alternatives Chart Good	1
ECM Pricing is Off	1
Fragmented Recommendations and Limited ECMs	1
Generic	1

Limited to Component Replacement	1
Limited to HVAC and Lighting	1
Short-term ROIs and Exclusion of Holistic ECMs	1
Solar Template Helpful	1
Technical Details about the Numbers	1
Total	33

Q45 - Actionability
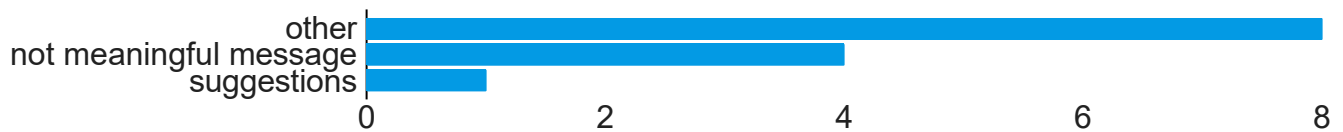
Field	Responses
Q45 - Actionability	13

Field	Choice Count
other	8
not meaningful message	4
suggestions	1
Total	13

Q45 - Sentiment Polarity

Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Q45 - Sentiment Polarity	0	0	0	0	0	13

Q45 - Sentiment Score

Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Q45 - Sentiment Score	-1	2	0	1	1	13

Q45 - Sentiment
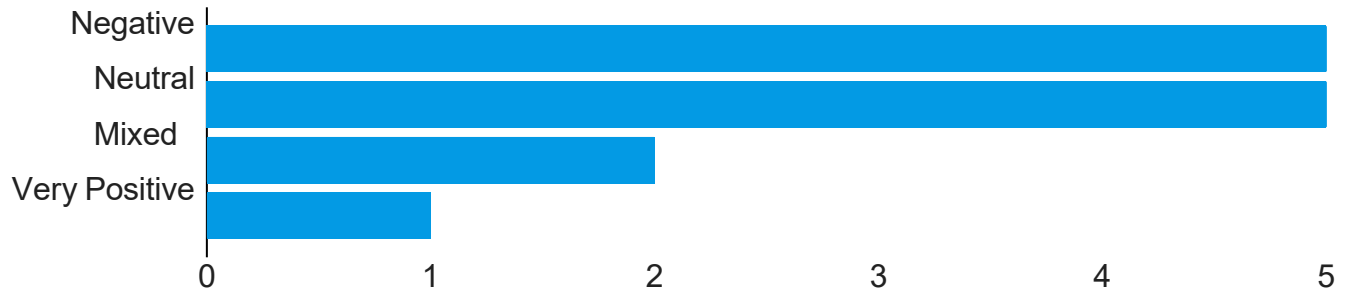
Field	Responses
Q45 - Sentiment	13

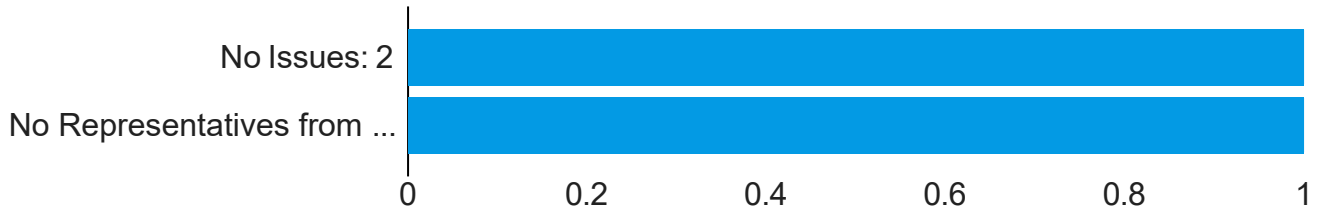| Field	Choice Count
Negative	5
Neutral	5
Mixed	2
Very Positive	1
Total	13

Q45 - Topic Sentiment Label
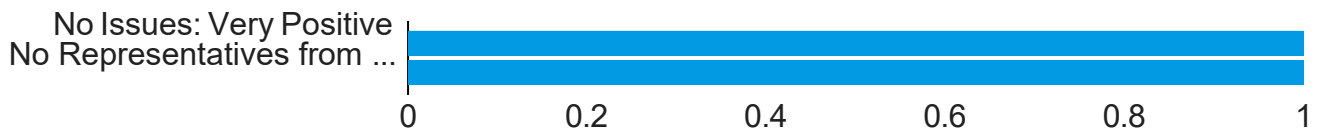
Field	Choice Count
No Issues: Very Positive	1

No Representatives from Utilities: Negative 1

Total 2

Q45 - Topic Sentiment Score

Field	Choice Count
No Issues: 2	1
No Representatives from Utilities: -1	1
Total	2

Q45 - Topics
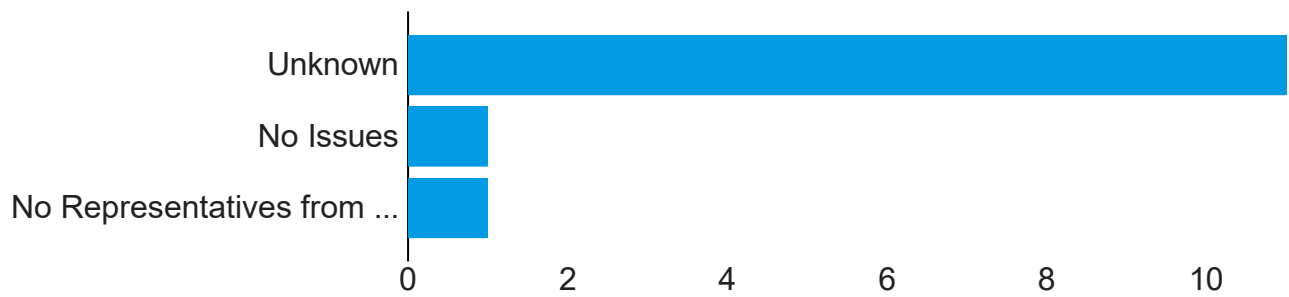
Field	Choice Count
Unknown	11
No Issues	1

No Representatives from Utilities	1
Total	13

Q45 - Topic Hierarchy - Q45 - Topic Hierarchy Level 1
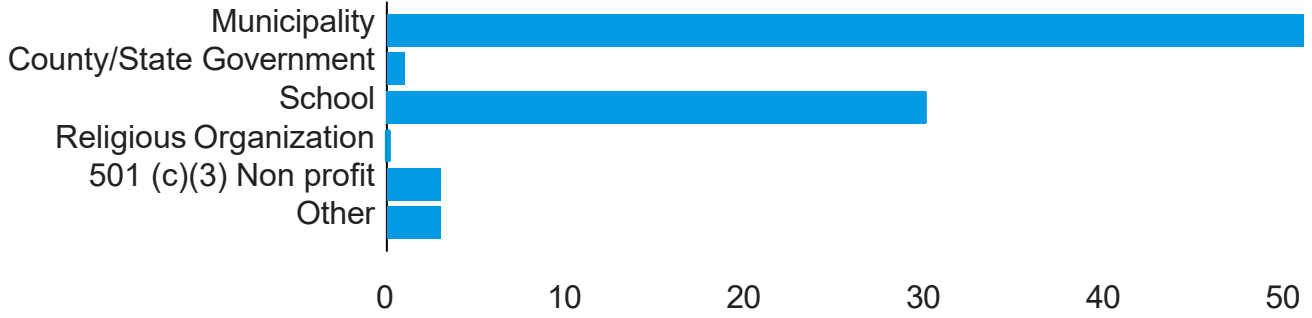
Field	Choice Count
No Issues	1
No Representatives from Utilities	1
Total	2

Appendix J. Non-Participant Survey Results

1 -What is your organization type?

Field	Min	Max	Mean	Standard Deviation	Variance	Responses
What is your organization type? - Selected Choice	1	6	2	1	2	88

Field	Choice Count
Municipality	51
County/State Government	1
School	30
Religious Organization	0
501 (c)(3) Non profit	3
Other	3
Total	88

Other - Text

Authority

1a. - What is your approximate resident population?

Field	Min	Max	Mean	Standard Deviation	Variance	Responses
What is your approximate resident population?	200	464000	28857	67381	4540156454	48

1b. - What is your approximate student population?

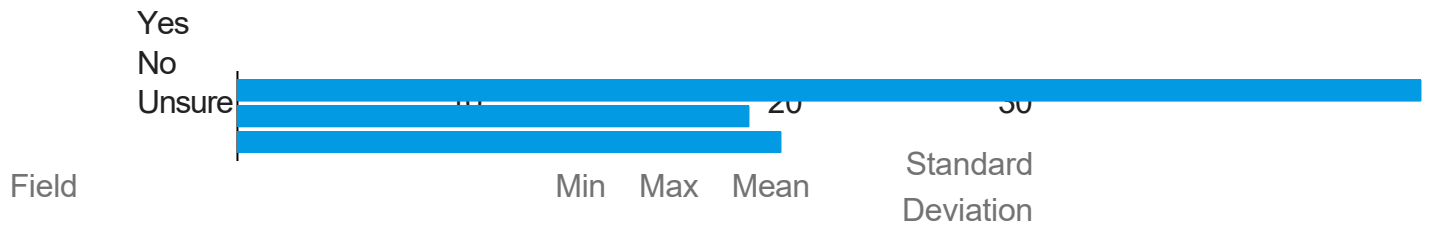| Field	Min	Max	Mean	Standard Deviation	Variance	Responses
What is your approximate student population?	10	7000	1839	1633	2666250	26

1c. - What is the approximate size of the population your organization serves?

Field	Min	Max	Mean	Standard Deviation	Variance	Responses
What is the approximate size of the population your organization serves?	25000	25000	25000	0	0	1

2- Does your organization participate in the Sustainable Jersey program?

Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Does your organization participate in the Sustainable Jersey program?	1	3	2	1	1	70

Field	Choice Count
Yes	37
No	16
Unsure	17
Total	70

3. - What is the approximate size of your staff (full-time)?

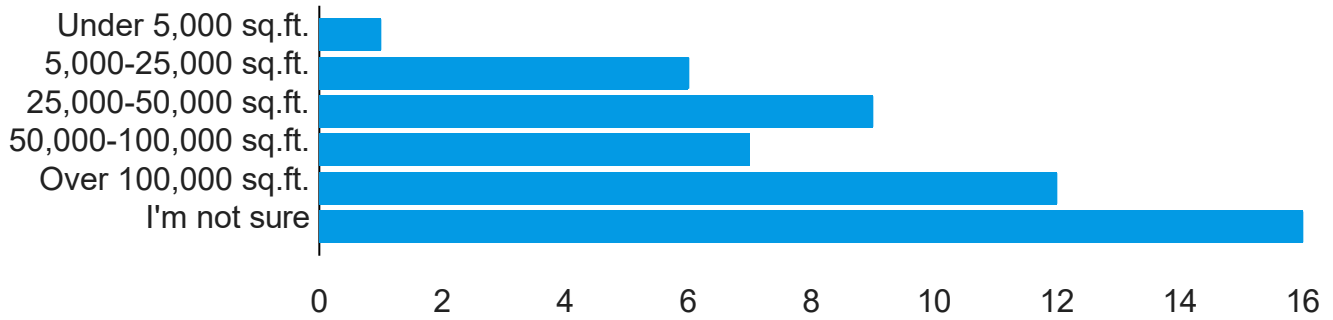| Field	Min	Max	Mean	Standard Deviation	Variance	Responses
What is the approximate size of your staff (full-time)?	0	1000	147	187	35108	57

4- Approx. how many buildings/facilities does your organization maintain?

Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Approx. how many buildings/facilities does your organization maintain?	1	25	6	5	27	45

5- What is the approximate total square footage of all buildings/facilities in your organization?
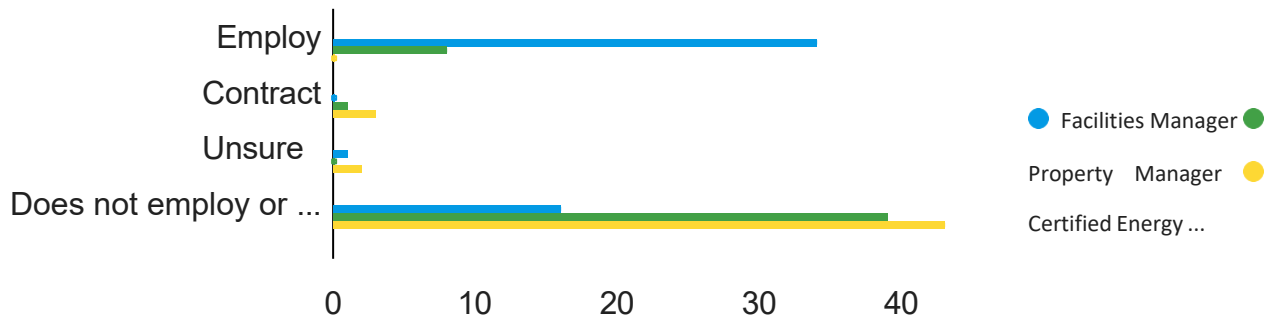

Field	Min	Max	Mean	Standard Deviation	Variance	Responses
What is the approximate total square footage of all buildings/facilities in your organization?	1	6	4	1	2	51

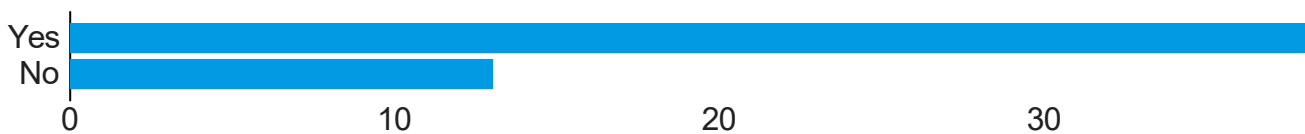| Field	Choice Count
Under 5,000 sq.ft.	1
5,000-25,000 sq.ft.	6
25,000-50,000 sq.ft.	9
50,000-100,000 sq.ft.	7
Over 100,000 sq.ft.	12
I'm not sure	16
Total	51

6- Does your organization employ or contract the following positions?

Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Facilities Manager	1	4	2	1	2	51
Property Manager	1	4	3	1	1	48
Certified Energy Management	2	4	4	1	0	48

Field	Employ	Contract	Unsure	Does not employ or contract this position	Total
Facilities Manager	34	0	1	16	51
Property Manager	8	1	0	39	48
Certified Energy Management	0	3	2	43	48

7- Have you heard of any New Jersey Clean Energy Programs for local governments, schools and non-profits in the state?

Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Have you heard of any New Jersey Clean Energy Programs for local governments, schools and non-profits in the state?	1	2	1	0	0	51

Field	Choice Count
Yes	38
No	13
Total	51

7a. - Can you tell me the names of any programs you know?

| Can you tell me the names of any programs you know? |
|---|
| Not at the moment |
| . |
| Direct Install |
| unsure |
| No |

8- The NJ BPU Local Government Energy Audit Program subsidizes the cost of an engineering analysis to examine facilities energy use improvements and to identify cost-justified energy-efficiency measures for local government agencies, school districts, state contracting agencies, public agencies, state colleges and universities, and select non-profit agencies. Prior to this survey, have you heard of NJ BPU's Local Government Energy Audit Program?
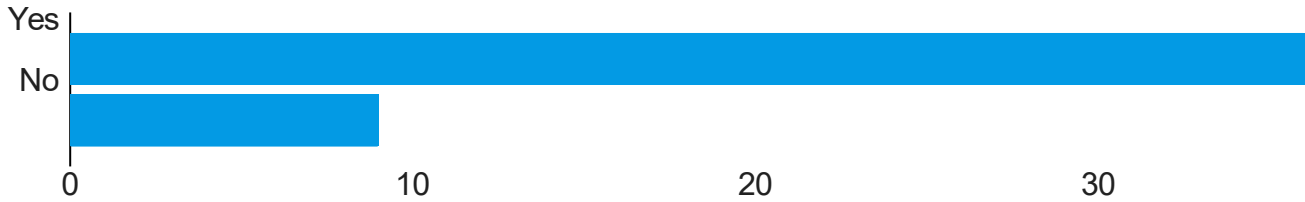
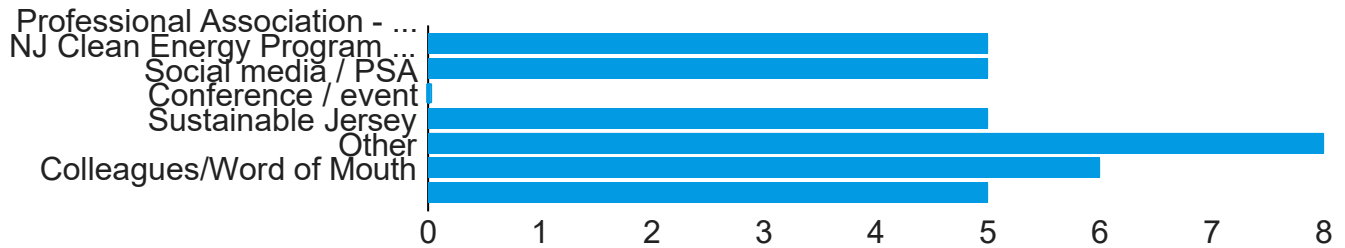| Field	Min	Max	Mean	Standard Deviation	Variance	Responses
The NJ BPU Local Government Energy Audit Program subsidizes the cost of an engineering analysis to examine facilities energy use improvements and to identify cost-justified energy-efficiency measures for local government agencies, school districts, state contracting agencies, public agencies, state colleges and universities, and select non-profit agencies. Prior to this survey, have you heard of NJ BPU's Local Government Energy Audit Program?	1	2	1	0	0	45

Field	Choice Count
Yes	36
No	9
Total	45

8a. - Where did you learn about the LGEA program?

Professional Association - ...
NJ Clean Energy Program ...
Social media / PSA
Conference / event
Sustainable Jersey
Other
Colleagues/Word of Mouth

Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Where did you learn about the LGEA program? - Selected Choice	1	7	4	2	4	34

Field	Choice Count
Professional Association - If so, which one(s)	5
NJ Clean Energy Program website	5
Social media / PSA	0
Conference / event	5
Sustainable Jersey	8
Other	6
Colleagues/Word of Mouth	5
Total	34

Professional Association - If so, which one(s) - Text
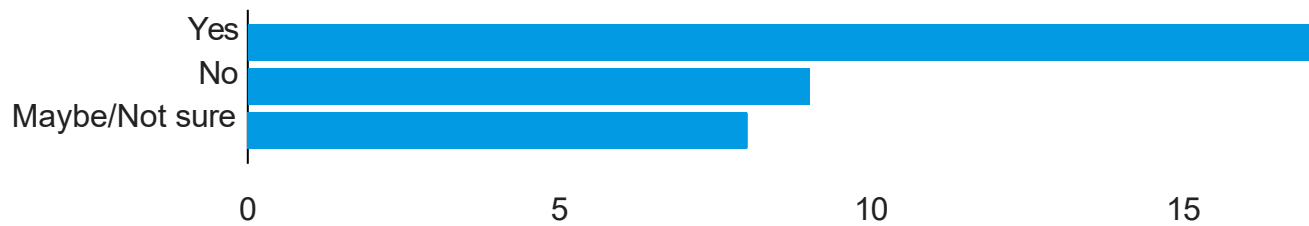
NJASBO

NJASBO

BCASBO

njslom

Boss

Other - Text

We participated

DEP/BPU
PSEG

We previously conducted an LGEA many years ago

I found it online

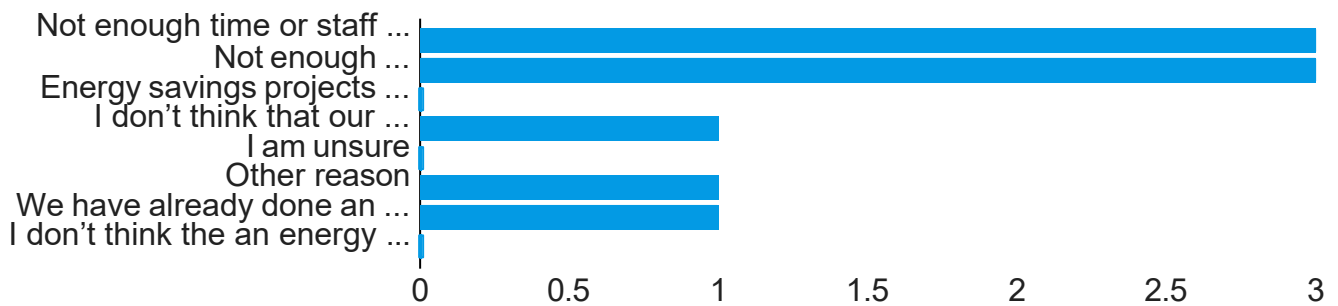8b. - Has your organization participated in the LGEA program?

Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Has your organization participated in the LGEA program?	1	3	2	1	1	34

Field	Choice Count
Yes	17
No	9
Maybe/Not sure	8
Total	34

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8c. - Why has your organization not participated in the LGEA program yet?

Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Why has your organization not participated in the LGEA program yet? - Selected Choice	1	7	3	2	5	9

Field	Choice Count
Not enough time or staff capacity to complete the program entry application	3
Not enough support/interest from upper management/administration	3
Energy savings projects are not a budget priority	0
I don't think that our organization meets program eligibility requirements	1
I am unsure	0
Other reason	1
We have already done an energy audit	1
I don't think the an energy audit will be helpful	0
Total	9

Other reason - Text

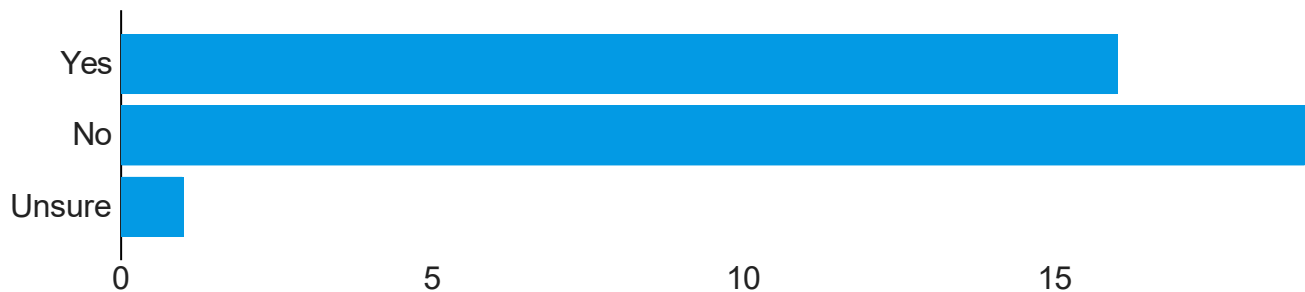we never got a call back, perhaps because we are a private school?

14- Do you have a Green Purchasing Policy?

Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Do you have a Green Purchasing Policy?	1	3	2	1	1	36

Field	Choice Count
Yes	9
No	15
Unsure	12
Total	36

15- Are there any solar energy installations on your facility(ies)/building(s)?

Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Are there any solar energy installations on your facility(ies)/building(s)?	1	3	2	1	0	36

Field	Choice Count
Yes	16
No	19
Unsure	1
Total	36

16- Is there anything else you'd like to tell us about the challenges of participating in New Jersey Clean Energy and Energy Savings programs?

Is there anything else you'd like to tell us about the challenges of participating in New Jersey Clean Energy and Energy Savings programs?
We want solar, but out building roofs will not support the weight of the panels
Yes stop the Wind Turbines and embrace SMR technology for NJ future
We are an extremely small town and do not have the staff or budget to do the paperwork/grant writing needed for most of these programs.
Navigating the process on what is eligible and not eligible. Service providers are struggling to keep up with formulas and changes in the program that impact eligiblility.
n/a

17- Is there anything else you'd like to tell us about your awareness, interest or ability to participate in New Jersey Clean Energy and Energy Savings programs?

RUTGERS
Edward J. Bloustein School
of Planning and Public Policy

Is there anything else you'd like to tell us about your awareness, interest or ability to participate in New Jersey Clean Energy and Energy Savings programs?

Yes listen to NJ residents and stop the 25 % effcient high maintainence wind turbines which will raise energy costs for ratepaters

Significant grant funds in concert with energy savings metrics would help smaller towns justify clean energy investments to overburdened taxpayers.

n/a

I would like to know of any programs for ground mount solar for out parking lot. Cars would park under the array.

Preferential funding for certain districts, breeds apathy in participating for the other districts.

9- How does your organization gather information about energy efficiency and available programs and incentives?
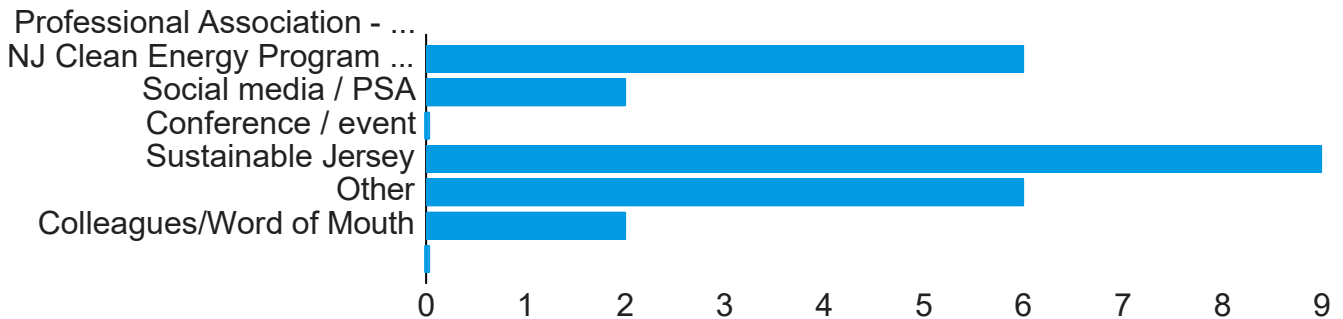
Field	Min	Max	Mean	Standard Deviation	Variance	Responses
How does your organization gather information about energy efficiency and available programs and incentives? - Selected Choice	4	9	7	2	3	25

Field	Choice Count
Professional Association - If so, which one(s)	6

218

NJ Clean Energy Program website	2
Social media / PSA	0
Conference / event	9
Sustainable Jersey	6
Other	2
Colleagues/Word of Mouth	0
Total	25

Professional Association - If so, which one(s) - Text

NJ League of Municipalities
New Jersey League of Municipalities
NJASBO
NJASBO
NJASBO

Other - Text
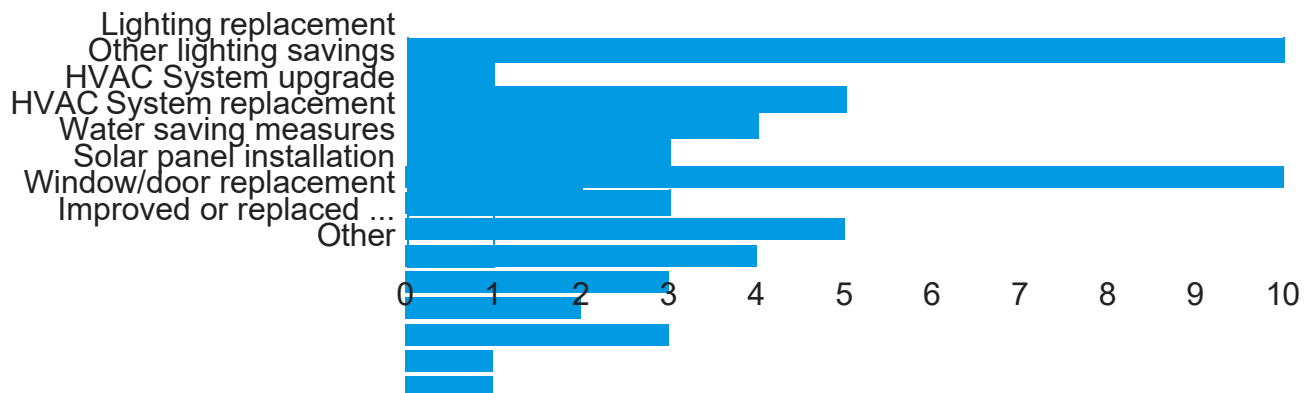
PSEG
Friends

10- Have you undertaken any energy savings projects over the past five years?

Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Have you undertaken any energy savings projects over the past five years?	1	3	2	1	0	25

Field	Choice Count
Yes	14
No	9
Unsure	2
Total	25

10a. - What type of project(s)?

Field	Choice Count
Lighting replacement	10
Other lighting savings	1
HVAC System upgrade	5
HVAC System replacement	4
Water saving measures	3
Solar panel installation	2
Window/door replacement	3
Improved or replaced insulation	1
Other	1
Total	30

Other - Text

Electric vehicles

10b. - How did you fund the energy saving measures?(check all that apply)
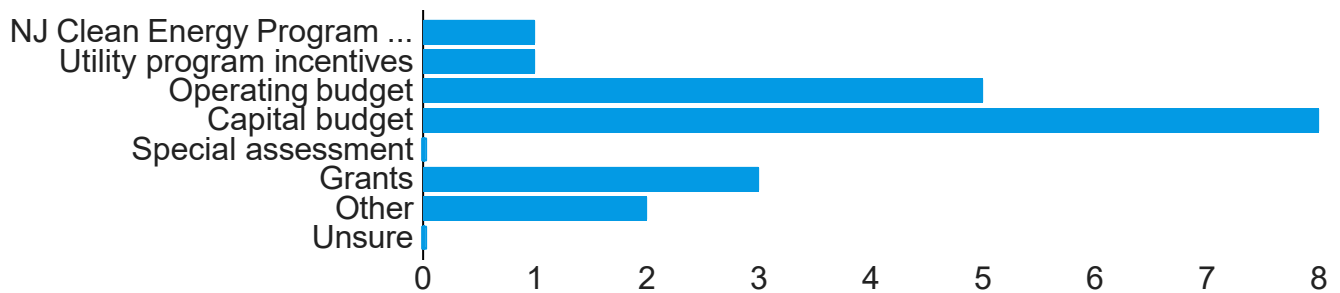
Field	Choice Count
NJ Clean Energy Program incentives	1
Utility program incentives	1
Operating budget	5

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Capital budget	8
Special assessment	0
Grants	3
Other	2
Unsure	0
Total	20

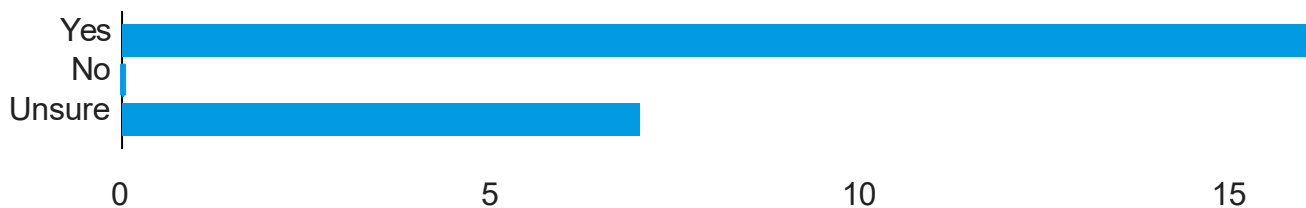| Other - Text |
|---|
| esip |
| ESIP |

10c. - Which NJ Clean Energy Program incentives?

Which NJ Clean Energy Program incentives?
NJ Direct Install Program

11- Are you planning to undertake any energy savings projects over the next five years?
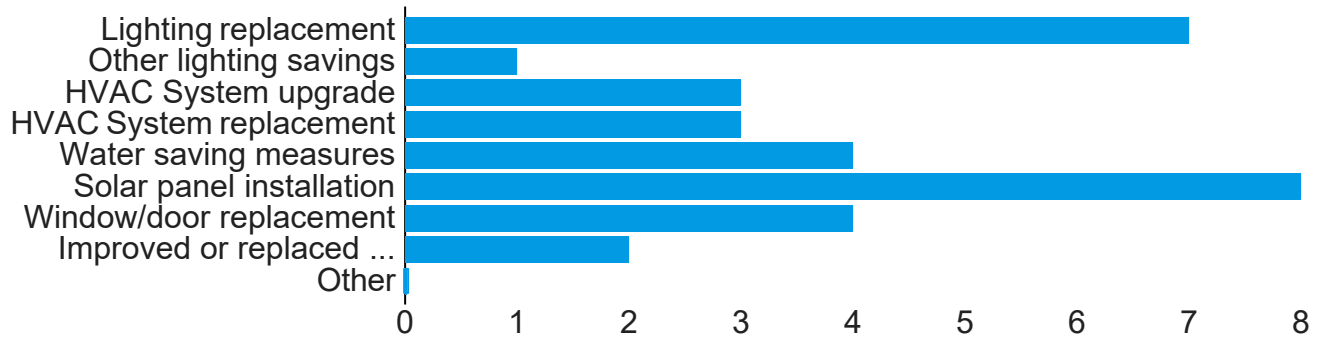

Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Are you planning to undertake any energy savings projects over the next five years?	1	3	2	1	1	23

Field	Choice Count
Yes	16
No	0
Unsure	7
Total	23

11a - What type of project(s) are you planning?

Field	Choice Count
Lighting replacement	7
Other lighting savings	1
HVAC System upgrade	3
HVAC System replacement	3
Water saving measures	4
Solar panel installation	8
Window/door replacement	4
Improved or replaced insulation	2
Other	0
Total	32

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11b. - How will you fund the energy saving measures?(check all that apply)
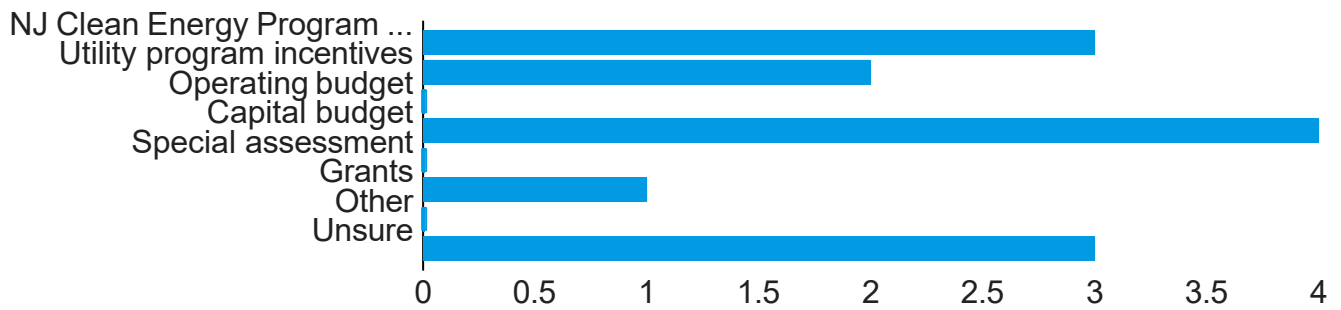
Field	Min	Max	Mean	Standard Deviation	Variance	Responses
How will you fund the energy saving measures?(check all that apply) - Selected Choice	1	8	4	3	7	13

Field	Choice Count
NJ Clean Energy Program incentives	3
Utility program incentives	2
Operating budget	0
Capital budget	4
Special assessment	0
Grants	1
Other	0
Unsure	3
Total	13

12- How likely is your organization to apply to participate in the LGEA program in the near future?
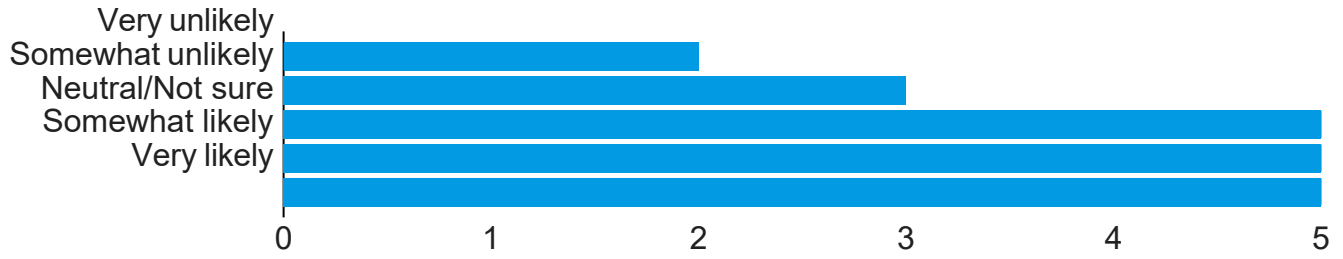
Field	Min	Max	Mean	Standard Deviation	Variance	Responses
How likely is your organization to apply to participate in the LGEA program in the near future?	1	5	3	1	2	20

Field	Choice Count
Very unlikely	2
Somewhat unlikely	3
Neutral/Not sure	5
Somewhat likely	5
Very likely	5
Total	20

13- How important are each of the following in making it more likely that your organization would participate in the LGEA program? (Check all that apply)
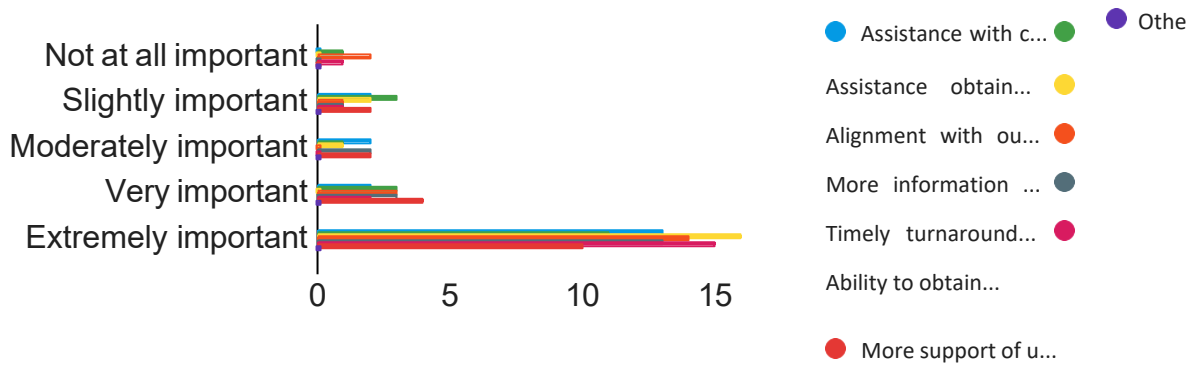
Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Assistance with completing the application	2	5	4	1	1	19
Assistance obtaining energy bills from utility	1	5	4	1	2	19
Alignment with our budgeting cycle	2	5	5	1	1	19
More information about costs/benefits upfront	1	5	4	1	2	20
Timely turnaround of audit report	2	5	4	1	1	19
Ability to obtain incentives/funding after the audit to implement measures	1	5	5	1	1	19
More support of upper management/administration	2	5	4	1	1	18
Other	0	0	0	0	0	0

Field	Not at all	important	Slightly	important	Moderatel	y

	important		Very important	Extremely important		Total	
Assistance with completing the application		0	2	2	2	13	19

Assistance obtaining energy bills from utility	1	3	1	3	11	19
Alignme nt with	0	2	1	0	16	19
our budgeti	2	1	0	3	14	20
ng cycle	0	1	2	3	13	19
More information about costs/benefits upfront	1	1	0	2	15	19
Timely turnaround of audit report	0	2	2	4	10	18
Ability to obtain incentives/fundi ng after the audit to implement measures	0	0	0	0	0	0
More support of upper management/administration						
Other						

Appendix K. Comparable Programs Review

Program Name (State)	Program Administrator	Eligibility Requirements for Participants	Process	Cost to Participant for Audit	Audit Type	Notes
NJCEP - LGEA Program (NJ)	**TRC** (Utilities implement ECMs)	1. buildings owned by many <u>local government -related entities</u>, New Jersey Colleges and Universities, and 501(c)(3) non-profit agencies 2. The buildings' average peak demand must be at least 200kW in the most recent twelve (12) months of electric utility bills	Submit application and required documents, program administrator performs walk through, delivers audit report to participant	Free NJCEP will subsidize 100% of the audit cost, up to an incentive cap.	ASHRAE Level 2 audits	
NYSERDA Clean Energy Communities - Clean Energy Upgrades for Municipal Buildings and Facilities (NY)	**Authority: NYSERDA**	1. City, town, village, and county governments (examples of eligible buildings: fire stations, parks facilities, water treatment plants, etc). School districts can get $ but must be through muni. 2. Different types of	Submit ENERGY STAR benchmarking report for municipal building that is 1,000 square feet or larger, report 12-month energy usage, submit documentation of implemented ECMs showing 10% reduction in GHG emissions against baseline, submit clean energy upgrades calculator,	Free	Varies	https://www.nyserda.ny.gov/All-Programs/Clean-Energy-Communities/How-It-Works Page 11: https://portal.nyserda.ny.gov/servlet/servlet.FileDownload?file=00P8z000001YYifEAG NYSERDA has relationship with all the munis so not a lot of marketing

		grants earn local gov. access to funding based on what "high-impact" actions community has taken 3. By completing four of the high-impact actions, municipalities can earn the Clean Energy Community designation and become eligible for grant funding to support clean energy projects.	Note: earn points that go to 3 different grant opportunities -			They are in midst of program redesign-looking at effort required for the amount of grant money awarded "Biggest thing is time. Needs to be lucrative enough, right sizing those incentives. Coordinators have made a tremendous impact - we would not have the number of people participating without them." Coordinators are based in each region of the State to help local leaders navigate through the program at no cost
NYSERDA (NY) - Small Commercial and Not-for-Profits Green Jobs-Green New York Energy Studies	**Authority: NYSERDA**	● Small Commercial (100 full-time employee equivalents or less) ● Not-for-profit organizations of any size ● Facilities must be 50,000 sq ft or less	● A comprehensive walk through of the facility ● Site staff interviews ● Utility bill analysis ● Fuel-neutral, unbiased evaluation of potential low-cost/no-cost and capital improvement energy efficiency upgrades ● Energy study report that outlines potential energy and cost savings	Modest cost-share based on participant # of employees/sf facilities ($100-500)	Varies	https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Publications/Fact-Sheets/GJGNY-energy-study.pdf

			opportunities for your facility.			
NYSERDA FlexTech Assistance (NY)	**Authority: NYSERDA**	• Commercial, industrial, and multifamily facilities in New York State that pay into the electric SBC are eligible to receive assistance • Colleges and universities must be Clean Green Campuses members to be eligible for FlexTech. Become a Clean Green Campuses member today • Small Businesses and Not-For-Profits may be eligible for a subsidized Green Jobs Green New York Energy Study *(see above)* • P-12 schools in New York State that pay into the electric SBC and are not designated as a public under-resourced school are eligible to receive assistance. P-12 schools that are designated as a public under-resourced school are eligible to participate in the P-12 Clean Green Schools Initiative.	Process varies per program		Varies	

ComEd an Exelon Company Energy Efficiency - Facility Assessments (IL)	**Utility**: ComEd (electric utility) assessments	1. ComEd Account # 2. facility's peak electric demand must be at least 400 kW for private businesses and public facilities over the past 12 months to receive a facility assessment. Private businesses and public facilities with peak demand less than 400 kW are eligible for an assessment through our small business offering.	Submit application (including 10-minute phone call), schedule site visit, get assessment report, ComEd engineer will review assessment report Online OR in person assessment?	Free	Energy-saving strategies identified by ComEd energy engineer	https://www.comed.com/WaysToSave/ForYourBusiness/Pages/FactSheets/FacilityAssessment.aspx https://www.comed.com/WaysToSave/ForYourBusiness/Pages/Overview.aspx
California Energy Commission's Energy Partnership Programs (CA)	**State Agency**: contracts with consultants	3. Cities, Counties, County Offices of Education, Special Districts, Public hospitals, Public care facilities, Public Colleges or Universities	Submit application, Governing Board Resolution, supplemental information (Latest 12 months of gas and electric utility bills. Past energy studies. Preliminary plans or proposals)	The Energy Commission provides technical assistance services up to $20,000 of a consultant's costs.	Evaluate energy efficiency opportunities	https://www.energy.ca.gov/programs-and-topics/programs/energy-partnership-program
California - California Local Government Program (LGP)	**California Investor Owned Utilities (IOUs) + local governments**	1. Each IOU has its own LGP that is tasked with working with local gov. To help	Depends on the specific IOU and LGP. Could not find resource that stated standard process	Depends on IOU-local gov. partnership	Depends on IOU-local gov. partnership	PG&E: https://www.pge.com/en_US/for-our-business-partners/channel-partners/partners-local-

235

		2. implement energy efficiency For example, PG&E has the "Energy Watch Partnerships" with different counties in CA that it services. 3. Services typically offered by Energy Watch Partnerships **: EE audits**, design assistance, ee marketing and outreach to communities, installation of EE equipment for small businesses, etc.				governments/partners-local-governments.page?ctx=business - https://smcenergywatch.org/ PG&E: Willdan: EE implementer http://public-efficiency.com/ CC-LEAP is "market support" not a program admin *"Just launched an online "action guide" provides rebate lists and things like that for residential customers programmatic recommendations. Would love to have that for municipalities/local governments."* *"We have one partner that didn't have enough staff to do the audits, and they partnered with the community college to do the audits. Getting as many people certified to do the audits is really important"*
Energize (CT)	**Utilities** (Eversource, UI, CNG, SCG)	1. Eversource or UI commercial, industrial, or municipal customers that use more than	utility-authorized contractor performs no cost no-obligation audit othat includes lighting, HVAC, and refrigeration	Free (cap at $5,000)	Energy assessment ("scoping study"): general walk through and report (more like	https://energizect.com/energy-assessments/commercial-buildings-municipal

		1,000,000 kWh annually across all their CT properties, and UI customers with an average 12-month peak demand over 200kW are eligible for this program. For natural gas-saving measures, you must be a firm customer of CNG, SCG, or Eversource.	systems. Contractor provides a customized recommendation that shows you how much energy and money you could save by upgrading to energy-efficient equipment. The contractor can then manage the whole installation process. Incentives and low-interest on-bill payment plans can help pay for upgrades.		ASHRAE level I, but not exactly)	Eversource covers CT, MA, NH

Eversource does individual outreach or through Sustainable CT.

"A lot of turnover in roles at municipal level make it difficult for project (ECM) implementation projects"

Relationship building to get Munis from audit to implementation is key |

NYSERDA FlexTech Program

The NYSERDA Flexible Technical Assistance (FlexTech) Program supports New York State vommercial, industrial and multifamily customers by providing a cost-share for credible, objective technical assistance services. This program provides a cost-share (up to $500k) to offset the cost of energy audits or other types of energy assessments. Energy assessments that are included in the program include energy efficiency technical analyses, investigation of an advanced technology or system, creation of a long-term energy plan, investigation of deep energy savings, investigation of clean heating and cooling systems including air source heat pumps, ground source heat pumps, variable refrigerant flow, and solar heating and cooling, investigation of distributed energy resources, and school bus electrification studies. Additionally, customers may get secondary studies such as renewable energy investigation or greenhouse gas inventories. The program is open to any C&I customers that pay into the electric SBC.

According to program literature[7], the goal of the program is to match participants with compelling information to justify investment. This is like the goal that TRC communicated for the LGEA program.

In a 2014 Process Evaluation conducted by Navigant,[8] some barriers of the FlexTech programs are study cost, lack of staff time to participate, securing capital for measure installation and program timeline vs decision timeline. This report also offered some relevant recommendations, including:
- Streamline application process by having project managers work on similar projects over time
- Provide list of post-audit actions to take, including funding sources and similar case studies

NYSERDA Small Commercial Assistance Program

Previously known as the Small Commercial Assistance program, the Small Commercial and Not-for-Profits Green Jobs - Green New York Energy Studies program is available to identify and analyze opportunities to make buildings more efficient. This program is available to small commercial customers with 100 or fewer full-time equivalent employees or not-for-profit organizations of any size (note that facilities must be 50,000 sq ft or less).

The program includes a comprehensive walk through of the facility, site staff interviews, utility bill analysis, low-cost/no-cost and capital improvement energy efficiency upgrades, and an energy study report that outlines potential energy and cost savings opportunities for the facility.
A process evaluation conducted in 2014 found that program barriers included limited capital, lack of employee time, split incentives and lack of knowledge.[9] Additionally smaller customers have additional barriers accessing financing. For example, non-profits tend to have funding uncertainty.

In 2012/13, the small commercial program piloted an "expeditor" firm model to support customers through process, which was not successful. The expeditors were separate from the firms that provided audits and were intended to provide additional support services to customers. The expeditor model was challenging due to the lengthy follow up time, meaning that staff turnover would require re-education on the audit results or smaller EE projects were already undertaken before contact. Consequently, they developed a one-stop shop with audit, implementer, and financing all together. Also, the program

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[7] https://www.nyserda.ny.gov/ny/FlexTech-Consultant-Materials
[8] NYSERDA, "Process Evaluation: FlexTech Program, Final Report", prepared by Navigant Consulting, 2014.
[9] NYSERDA, "Small Commercial Energy Efficiency Program Market and Process Evaluation", 2014.

timeline shows optional customer follow ups at three months and six months, which could be useful in the LGEA program to increase measure installations.

ComEd Facilities Assessment

ComEd offers free facility assessments to help local government and school customers identify energy-saving opportunities. An energy engineer visits the facility and provides a facility assessment report with estimated project costs, available incentives, and simple payback times. Smaller public sector customer (those with under 400 kW peak demand) are eligible for the Small Business program, which offers no-cost financing.

This program is very similar to NJ's LGEA program, but no process evaluations can be located to identify barriers or best practices. An ACEEE study that looked at a ComEd Small Business Direct Install program that includes the assessment offered a few recommendations that are relevant to the LGEA program[10]

- Offer turnkey solutions to eliminate unnecessary burdens and obstacles for the customer, inform and enable trade allies, and scale to deliver significant impacts for the utility.
- Offer right-size incentives to ensure small businesses can afford to participate.

Bright Schools: California Local Government Programs (Energy Watch Programs)

The California Bright Schools Program is for K-12 public, charter, and state special schools. The program provides energy audits and feasibility studies, review existing proposals and designs, develops equipment performance specifications, and reviews commissioning plans. The program provides up to $20,000 for these technical services, with cost-share available above that amount.

RCGB was not able to find any evaluations of this program to determine whether school districts follow through on the recommendations in the energy audits or to discover any best practices or lessons learned.

XCEL Partners in Energy

Partners in Energy provides the tools and resources to support communities in achieving their energy goals. The program offerings include support to develop an energy action plan or electric vehicle plan, tools to help implement the plan and deliver results, and resources designed to help communities stay informed and achieve their energy goals.

RCGB was not able to find any evaluations of this program to determine whether communities follow through on the recommendations in the energy audits or to discover any best practices or lessons learned.

Energize Connecticut

An Energize Connecticut report notes that education and engagement programs do not need to directly create savings, but do need to lead to actions, and/or changes to behaviors and practices that may lead

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[10] ACEEE "The New Leaders of the Pack: ACEEE's Fourth National Review of Exemplary Energy Efficiency Programs", January 2019.

to savings[11]. A main finding in the evaluation was that the studied educational initiatives were unable to show how they are meeting their goals because outcomes of activities are not well-defined and that the initiatives were counting activities rather than looking at how activities create larger outcomes that meet goals. LGEA has a similar issue in that there are not well-defined goals for the program, so it is difficult to measure outcomes vs the goals. The recommendation was that follow-up be conducted with participants, which is a key recommendation for LGEA as well.

Several overarching recommendations for educational initiatives would also help strengthen the LGEA program and aid in tracking its success:

- Describe Goals and Intended Outcomes: What are the current goals and what outcomes will lead to the meeting of these goals?
- Establish Clear Metrics and Tie them to Activities and Outcomes: All programs need consistent tracking metrics.
- Energy savings, direct or indirect, are necessary: Ratepayer-funded programs should be tied (directly or indirectly) to energy savings. Measure installations that result from LGEA audits should be linked to subsequent energy savings.

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[11] Energize Connecticut, "Evaluation of Educate the Workforce, Educate the Students, Educate the Public and Customer Engagement Initiatives", 2021.