Evaluation of Illinois Energy Now Smart Energy Design Assistance Program

June 2011 through May 2012

Prepared for:

Illinois Department of Commerce Economic Opportunity

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Executive Summary

This report presents the results of the impact and process evaluations of the Smart Energy Design Assistance Center Program (SEDACP), an energy efficiency program administered by the Smart Energy Design Assistance Center (SEDAC) and operated by the University of Illinois Building Research Council with partnership with the 360 Energy Group. The program is sponsored by the Illinois Department of Commerce and Economic Opportunity (DCEO). This report presents results for program activity during the period from June 2011 through May 2012, a period defined as electric program year 4 and natural gas program year 1 (EPY4/GPY1). Participants in SEDACP receive a building energy assessment and an accompanying report that recommends measures to reduce energy consumption at the facility.

The main features of the approach used for the evaluation are as follows:

- Data for the evaluation were collected through a review of program materials, interviews with SEDAC Program staff members, surveys and follow-up conversations with SEDACP participants, and site visits with SEDACP participants.
- An engineering desk review was performed on program measures to verify net savings estimates associated with energy efficiency projects implemented by SEDACP participants.

ADM contacted a sample of participants who received a building assessment to determine the following:

- Whether the participants had implemented any of the recommendations;
- Whether the participants had received incentives through a utility or DCEO program to implement the recommendations;
- The influence of the building assessment on the decision to implement the recommendations; and
- Additional technical details of the project.

Savings were estimated for non-incented projects that were influenced by the building assessments. Thus, estimated savings were net of the total gross program savings in that they excluded projects that received incentives or were not influenced by the building assessments. The savings impact estimation process involved a review of the available measure inputs and follow-up calls and site visits with the appropriate participant and facility management staff members. The evaluators referred to the Illinois Statewide TRM, the Ohio TRM, eQUEST energy simulation software, and ASHRAE in order to estimate savings for each measure type. The Illinois Statewide TRM was the primary reference for the evaluation.

Table ES-1 presents the net savings for sampled sites for each measure and maintenance category that achieved net savings within the EPY4/GPY1 sampled participant group.

Table ES-1 Net Savings by Measure for EPY4/GPY1 Participant Sample

Measure Category	*Total Sampled Net Savings*		
	kWh	*kW*	*Therm*
Envelope	12,093	5.6	1,429
HVAC	7,354	4.3	-
Lighting	74,569	27.1	-
Lighting Controls	196,324	74.0	-
HVAC Controls	10,735	3.0	716
Total	301,075	113.9	2,145

The total net savings for the sample shown above were extrapolated to estimate savings attributable to SEDACP for all program participants. Table ES-2 presents the net kWh and kW savings by utility for SEDACP during EPY4/GPY1 for facilities that receive electric service from SEDAC Program investor utilities. It should be noted that as some participants were serviced by non-program electric utilities such as municipal utilities, electric savings generated through these participants were not attributable to SEDACP investor utilities.

Table ES-2 Summary of Net kWh and kW Savings for SEDAC Program EPY4/GPY1

Program Component	*Realized Net kWh Savings*	*Realized Net kW Savings*
Ameren	611,473.3	179.1
ComEd	1,165,402.1	469.5
Total	1,776,875.4	648.6

Table ES-3 presents the net therm savings by utility for the SEDAC Program during EPY4/GPY1 for facilities that receive gas service from SEDAC Program investor utilities. It should be noted that as some participants were serviced by non-program gas utilities such as municipal utilities, gas savings generated through these participants were not attributable to the SEDAC Program investor utilities.

Table ES-3 Summary of Net Therm Savings for SEDAC Program EPY4/GPY1

Program Component	*Realized Net Therm Savings*
Ameren	-
Nicor	4,061.1
Peoples	-
North Shore	13,070.0
Total	17,131.1

The total net energy savings of the SEDAC Program during EPY4/GPY1 are summarized in Table ES-4. During this period, net energy savings totaled 1,776,875.4 kWh and 646.6 kW. Net gas savings totaled 17,131.1 therms.

Table ES-4 Summary of Net Savings from EPY4/GPY1 Electric and Gas Projects

Savings Level	*Total Net Savings**		
	kWh	*kW*	*Therm*
Per Participant	9,303.0	3.4	89.7
Extrapolated to EPY4/GPY1 Participants	1,776,875.4	647.6	17,131.1

*Savings totals do not include savings that were attributable to non-program utilities such as municipalities.

The following section presents a summary of key findings from the process and impact evaluations of the EPY4/GPY1 SEDAC Program. These conclusions and recommendations are based on a combination of research activities including participant surveys, interviews with program staff, and reviews of program tracking data, documentation, and prior evaluation reports.

The following is a summary of key conclusions from the EPY4/GPY1 evaluation of the SEDAC Program:

- **SEDAC Audit Reports are a Valued Resource for Participants:** All of the participants that were interviewed by ADM expressed a high level of satisfaction with the assessments and indicated that the SEDAC audit reports and recommendations were useful. In almost all cases, participants mentioned that the SEDAC reports identified energy cost reduction measures (ECRMs) at their facilities that would have otherwise gone unnoticed. Often, facilities are not inclined – or cannot afford – to conduct energy audits or receive consultations from engineering firms. SEDACP has provided an effective service for identifying potential ECRMs and the energy savings that can be achieved through implementing those ECRMs. Additionally, some respondents indicated that presenting SEDAC audit reports to stakeholder committees or board members can legitimize facility managers' requests for funds to implement the recommended ECRMs.

  Furthermore, participants mentioned that after the ECRMs were installed, they noticed reductions in energy usage at their facilities, and thus lower electric and/or gas costs.

- **SEDACP Often Serves as a "Gateway" Program to other DCEO Incentive Programs:** Interviews with facility decision makers revealed that a large number of ECRMs were installed with the aid of incentives from DCEO and/or utility programs. Indeed, each SEDAC audit report that is provided to decision makers contains a section that refers them to applicable DCEO grants and utility incentive programs. Most reports refer directly to the programs funded through the Energy Efficiency Portfolio Standard

(EEPS). Thus, decision makers were able to quickly identify which ECRMs could be incentivized and by which entity. Along with the energy audit results, the identification of available incentives is a critical and highly valued aspect of the program.

- **Non-Incentivized Savings Directly Attributable to SEDACP are Nominal:** Verified savings attributable to SECACP were relatively small compared to the total savings associated with all of the measures recommended by SEDACP. Most participants indicated that upon receiving the SEDAC audit report, they either a) decided to not implement the ECRMs at the time, or b) applied for incentives through DCEO or through their electric and/or gas utility to help cover the cost of implementing the ECRMs. In very few cases, participant facilities implemented SEDAC-recommended ECRMs without applying for and receiving outside incentives. This is not unexpected, given that a primary purpose of the program is to inform participants of the availability of incentives for making efficiency improvements.
- **Large Lag Time between Receiving Report and Implementing ECRMs:** In only a few instances did participants report being able to implement ECRMs shortly after receiving the SEDAC audit reports. Most decision makers at the participating facilities indicated that a period of 6 months to two years is required to fully implement the ECRMs. The elapsed time between when the recommendations are received and when they are implemented was often caused by budgetary cycle schedules and having to seek out board or committee approval for costs associated with installing ECRMs. This is not surprising, given that many organizations fund large energy efficiency improvements though annual capital budget requests. It is noteworthy that survey respondents reported that they did not plan to implement fewer than 15% of the recommended measures, suggesting that measures not yet implemented are likely to be in the future.
- **The Program is Improving Regional Capacity for Energy Efficiency:** The growing number of Design Assistance Experts (DAEs) indicates that SEDAC is building regional capacity in the energy efficiency and green building sectors. These market transformation effects may have an impact on energy efficiency in Illinois that persists independently of the SEDACP. Additionally, increasing numbers of DAEs and the continued efforts by program staff to promote the program are helping to inform and educate public sector building operators about the value of energy efficient buildings. This will likely assist in reducing barriers to energy efficiency within the participant population.
- **Quarterly Communication with Participants has been an Effective, Long-Term Strategy to Retain the Value of the Energy Assessment Provided**: Because the design assistance is free to the participants, they often do not have immediate intentions of installing the recommended measures or design features. SEDAC's objective is to identify all opportunities for energy savings; some projects have a higher payoff and can be completed in the short term, while other recommendations take several years to be approved by stakeholders before they are implemented because they require significant

capital investments. 360 Energy Group acknowledges these short and long term planning cycles, and schedules quarterly outreach efforts to ensure that the necessary support is available beyond the initial assessment.

The following is a summary of key recommendations from the EPY4/GPY1 evaluation of the SEDAC Program:

- **Expectations for SEDACP Savings from Projects Implemented Two Years After Assessment Should be Limited:** The SEDCAP is clearly designed to inform participants of ways that they can reduce their energy consumption and of how incentive programs can help offset the costs associated with making the improvements. As such, most facilities that implement recommended ECRMs also follow the recommendations to seek outside financial assistance for installing those ECRMs. Therefore, savings directly and solely attributable to SEDACP are expectantly low and are primarily limited to small projects with limited implementation costs.

  However, the value of the program for identifying savings projects was noted by several participants who indicated that they most likely would not have identified the energy saving measures had they not been recommended by SEDACP. This suggests that some of the savings for which incentives were received are likely partially attributable to the SEDACP, but cannot be claimed. To claim a portion of these savings for the program, an agreed upon framework for apportioning savings between SEDACP, DCEO and utility incentive programs is needed.

- **Use Utility Bills to Verify Account Numbers**: For a number of participants, account numbers for natural gas and electric utilities in the program tracking data were either missing, incorrect, or incomplete. Accurate account numbers are important for the evaluation effort because they are used to verify with participating utilities whether or not participants received incentives for implementing SEDACP recommendations. It is recommended that SEDACP staff use copies of electric and natural gas utility bills to verify the account numbers.

- **Continue Developing DAE Network:** 360 Energy Group has continuously developed its network of service providers in order to effectively distribute program information and resources to customers. These efforts should continue, as service providers are an important resource for increasing program activity and educating public sector decision makers about the benefits of energy efficiency improvements. It may be of value to focus recruitment efforts on firms that have established customers in Illinois. These service providers can capitalize on the trust already developed with participants to help educate them about the benefits of conducting energy saving projects.

1. Introduction

This report presents the results of the impact and process evaluations of the Smart Energy Design Assistance Program offered by the Illinois Department of Commerce and Economic Opportunity (DCEO). This report presents results for program activity during the period from June 2011 through May 2012.

1.1 Description of Program

The SEDAC Program provides participants with design assistance reports that detail energy cost reduction measures (ECRMs) which have been deemed appropriate for the participant. The reports list ECRMs individually, but rather than encourage the participant to invest in individual measures, the recommendations bundle cost-effective measures that result from interactive effects attainable when the building is analyzed as a whole. Cost-effective strategies are those bundles of ECRMs where the internal rate of return on the investment is greater than the discount rate and where the net present value of the investment is greater than zero.

The Smart Energy Design Assistance Program provides services at no cost to participants. The program currently offers four levels of assistance to participants:

- **Level 1 Initial Consultations:** This first level is designed to allow participants to have informative interactions with program staff and industry professionals in order to convey the benefits and overall structure of the SEDAC Program. Participants are able to ask questions and seek technical assistance regarding the potential for energy efficiency improvements in their facilities, and may consider the value of advancing to additional program levels.
- **Level 2 Energy Audits:** In this phase of the program, participants with existing facilities receive a site visit and in-depth consultation, while participants who are planning to renovate or construct new facilities receive a professional review of their building plans. SEDAC performs an analysis of building usage requirements and specific facility characteristics, resulting in a ranking of potential ECRMs. SEDAC then provides the results of this analysis to the participant along with detailed suggestions related to project design. The recommendations incorporate the whole-building approach to energy efficiency by grouping cost-effective measures that create synergistic effects when implemented together. Participants can then discuss the potential energy savings associated with proceeding to the design assistance phase of the program with SEDAC.
- **Level 3 Design Assistance:** This level is composed of an in-depth building analysis that is designed to identify the expected savings and costs from individual energy cost reduction measures (ECRMs) in the participant facility. The design assistance process incorporates energy simulation modeling, evaluation of each potential ECRM, and a life cycle cost analysis for the measures. SEDAC uses simulation software such as eQUEST

and TRACE 700 to model facility baselines and measure the energy effects of implementing individual ECRMs. The participant is then presented with a feasibility report detailing the costs and energy benefits associated with the recommended energy efficiency improvements.

- **Level 4 Implementation Support:** This supplementary program phase is available to participants who encounter difficulties with implementing the projects identified through the previous program levels. In these cases, SEDAC provides guidance related to the financial and operational aspects of implementation, including contractor selection, final design specifications, and project cost management.

SEDAC communicates with participants who have completed one or more phases of the program. This allows SEDAC to further assist participants in their implementation process and to potentially expand the scope or efficiency of the existing projects. Additionally, SEDAC uses information from past participant projects to perform future cost analyses and design assistance plans for new participants. SEDAC maintains contact with previous participants to increase implementation of energy cost reduction strategies already identified, and incorporates the added benefits of the incentives into the cost analyses conducted for new participants.

Throughout the assistance process, SEDAC informs participants of available energy efficiency incentives that will reduce the cost of the recommended measures. SEDAC directs participants to Illinois Energy Efficiency Portfolio Standards (EEPS) incentive programs in order to support them in their implementation of energy efficiency improvements. Additionally, some participants are referred to the SEDAC Program through their involvement with the existing EEPS incentive programs. While some measures implemented through the SEDAC Program are associated with an EEPS incentive, participants are able to install measures without the assistance of an incentive. The SEDAC Program claims savings only for those projects completed as a result of the SEDAC consultation that do not receive additional EEPS financial assistance.

During the June 2011 through May 2012 period, 191 projects were completed in the program.

1.2 SEDAC Savings Methodology Overview

SEDAC applies the following steps to estimate the savings for the recommended efficiency improvements:

1) SEDAC constructs a baseline model using TRACE 700 or eQuest software products. These computer programs perform an hourly building energy simulation, which calculates the amount of energy (and the resulting utility cost of that energy) that the building is expected to use over an entire typical weather year. Model inputs include building geometry and orientation, wall and roof details, window area and type, type of heating and cooling system, type of lighting, local weather information, and schedules regarding lighting usage, internal equipment usage, and occupancy. This “baseline”

computer model shows the buildings estimated annual energy consumption and utility cost.[1]

2) SEDAC performs a computer analysis of energy cost reduction measures (ECRMs). The recommended ECRMs are generated after reviewing and discussing the baseline building plans or inspection report. The baseline computer model is changed to reflect the implementation of these ECRMs, and the computer model generates the resultant energy consumption and expected utility costs. Some ECRMs are evaluated externally from the model since the model does not cover all circumstances.

3) The estimated savings and the additional costs of implementing all analyzed ECRMs are evaluated in a life cycle cost analysis.

4) ECRMs that have favorable economics are bundled together and re-modeled against the baseline for which any interactions between ECRMs are accounted.

1.3 Impact Evaluation Approach

The overall objective for the impact evaluation of the SEDACP was to estimate the electric and natural gas savings that resulted from projects completed as a result of the program and that do not receive additional EEPS financial assistance.

The M&V approach was based on the following features:

- Selection of a representative sample of program participants;
- Telephone interviews to identify participants who implemented energy efficiency measures for which they did not receive an incentive;
- Telephone verification of claimed measures at sampled sites; and
- Site-level savings extrapolation to Program level savings.

1.3.1 Data Collection Procedures

A sample of participants in the SEDAC Program for EPY4/GPY1 were contacted by telephone to ascertain what energy efficiency measures they implemented (with or without receiving an incentive) since the energy audit was performed.

In total, ADM contacted a sample of 29 EPY4/GPY1 participant facilities to conduct follow up interviews and/or schedule an onsite visit to verify and evaluate the implementation of

[1] For existing buildings, the baseline is taken as the existing systems, and the full costs of the electricity cost reduction measures are analyzed. For new construction or renovation, the baseline is determined from design drawings and code requirements and the incremental costs of report recommendations are analyzed.

recommended ECRMs. Those who responded were asked if they received incentives for the measures that had been installed. ADM scheduled site visits to facilities that met the following criteria:

- Installed (or were planning to install) one or more ECRMs recommended by the SEDAC audit reports for EPY4/GPY1;
- Did not yet receive or will not receive incentives for such ECRMs from DCEO or another gas and/or electric utility incentive program; and
- Facility staff was able to meet with ADM staff for an on-site visit.

These criteria had to be met in order to evaluate impact savings that were directly attributable to the SEDACP and not to another utility or DCEO incentive program. As previously noted, participants had either received incentives or had not yet implemented the recommendations. Consequently, eight site visits were completed from the initial sample.

Table 1-1 Sample Interval Process for EPY4/GPY1 Projects

Sample Interval	*Quantity*
Total EPY4/GPY1 projects	191
Facility staff interviewed (final sample)	29
Net Savings Project Analyses Completed	12
On-site visits conducted	8

Participants were also asked about questions related to the process evaluation during telephone and/or onsite interviews. Based on this sample, the evaluators confirmed that 41% of facilities that received a SEDAC report installed at least one ECRM that generated savings attributable to SEDACP, per the criteria listed previously.

1.3.2 Data Collection and Estimation of Sample Site Gross Savings

ADM staff accomplished three tasks during the follow-up telephone and site interviews:

- First, the implementation status of all measures was verified by interviewed participants. Evaluation staff members verified that the energy efficiency measures were indeed installed and that they still function properly.
- Second, evaluation staff members collected information regarding any details necessary for savings calculation. Data were collected based on the measure input requirements of the data sources being referenced for the particular measure.
- Third, evaluation staff members interviewed the contact personnel at a facility to obtain additional information on the project, such as project timing and other background details in order to further inform the savings estimation process.

1.4 Process Evaluation Approach

This section presents the key tasks that were included in the process evaluation for the program year.

1.4.1 Review Program Documentation

To begin the process evaluation effort, the evaluators reviewed documentation and data for the SEDAC Program. This review involved working with DCEO and SEDAC staff to identify and obtain relevant documents for review.

In addition, the evaluators reviewed participant tracking records. These data were used for several purposes:

- Preliminary analysis of the characteristics of the participant populations, to be used for planning purposes and to provide an increased understanding of program participation;
- Developing sample frames for the participant population; and
- Extracting information about participant facility types and the types of businesses represented by program participants.

1.4.2 Conduct Program Staff Interviews

The evaluators conducted interviews with SEDACP management staff. The general purpose of these interviews was to understand the intent of the program, how the program operates, and areas of concern that staff may have about the program.

More specifically, topics addressed by these in-depth interviews included:

- How the program is organized;
- Type and level of marketing activities;
- Perspectives on the characteristics of the participants or potential participants;
- Strengths and weaknesses of the program;
- Areas where the program may need to be changed or strengthened; and
- Anticipated changes to the program.

Information obtained through these interviews was used to develop an understanding of program operation, identify trends in program performance, and further inform the impact evaluation of the program.

1.4.3 Conduct Participant Surveys

The evaluators collected data from SEDAC Program participants for the process evaluation by means of a telephone and email survey. The goal of these surveys was to obtain a detailed understanding of the participants' perspective of the SEDAC Program, their decision making

processes for implementing measures, their perceptions of the process, the effect of the energy audits on their knowledge and behavior, and the benefits they perceive.

The sample design was based on data on program participation provided by DCEO. In total, 165 EPY1 to EPY4/GPY1 SEDAC participants responded to the participant survey.

The content of the survey focused on the following issues:

- Awareness of the program;
- Motivations for participating in the program;
- Factors that influenced the participant to enroll in the program;
- Participant satisfaction with the program;
- Participant suggestions for program improvement;
- Whether the participant has engaged in energy efficient practices since participating in the program;
- Whether the participant implemented energy efficient measures (and received or did not receive an incentive) since participating in the program; and
- Firmographics and demographics.

The results from the participant survey are used to inform the process component of the evaluation. The participant survey provides insight into the participant perspective, allowing the evaluators to identify trends in program performance and any issues regarding program structure, operation, and delivery that may require attention.

1.5 Organization of Report

This report on the impact and process evaluation of the Smart Energy Design Assistance Center Program for the period June 2011 through May 2012 is organized as follows:

- Chapter 2 presents and discusses the methods used for estimating net savings for measures installed under the program.
- Chapter 3 presents and discusses the results obtained from the process evaluation of the program.
- Appendix A provides a copy of the questionnaire used for the participant survey.
- Appendix B presents tabulated results from the participant survey instrument.

2. Estimation of Net Savings

This chapter addresses the estimation of kWh, peak kW, and therm reductions resulting from measures installed in facilities (with no incentive received) that obtained energy audits through the Smart Energy Design Assistance Center Program during the period of June 2011 through May 2012. This period is defined as electric program year 4 and natural gas program year 1 (EPY4/GPY1). Section 2.1 through section 2.4 describes the steps taken to identify energy saving projects and calculate the resulting energy savings.

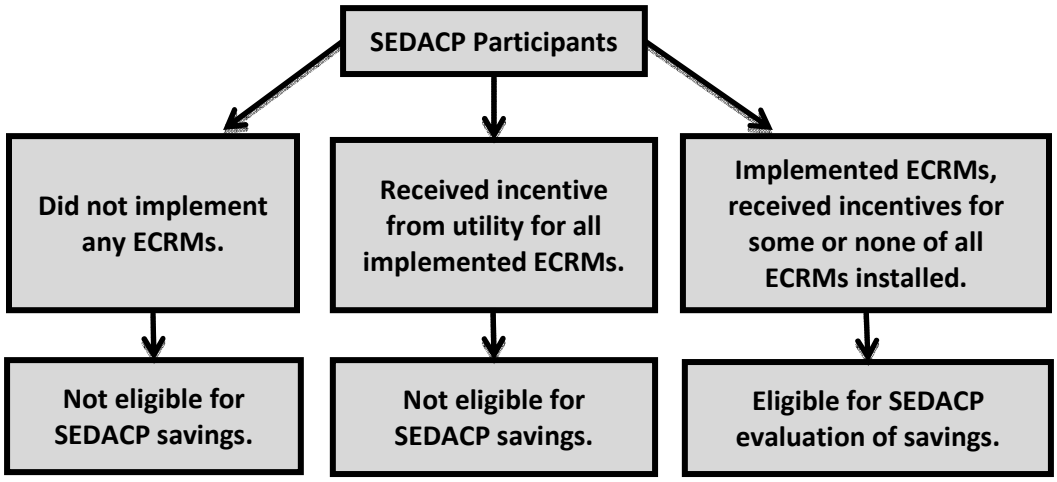
2.1 Review of Participant Interviews

ADM staff conducted telephone and on-site interviews with SEDACP participants that served as the initial source for data regarding projects implemented during EPY4/GPY1. In total, the evaluators interviewed 29 SEDACP participants. Interviewed participants were asked about two principal issues:

- If they partially of fully implemented ECRMs that were recommended in the audit reports; and
- If they received an incentive for the ECRMs that they implemented.

Participants who indicated that they did not receive an incentive for measures they partially or fully implemented were identified as potential savings projects. Participants that indicated that they received incentives for measures they implemented from the SEDAC audit reports from utilities and/or DCEO were eliminated from consideration when calculating impact savings directly attributable to the SEDACP.

Figure 2-1 Decision Process for Evaluating SEDACP Impact Savings



Participants also provided information related to measures installed and equipment changes implemented after participating in the energy audit portion of the program, along with any available inputs for estimating savings such as measure type, facility square footage, and other

details. The evaluators reviewed the interview findings to identify all projects that would potentially generate savings attributable to SEDACP for the EPY4/GPY1 program year.

For any projects that did not have sufficient inputs or where more detail was required, the evaluation staff contacted facility operators or the appropriate equipment contractor for the facility in order to obtain the necessary information.

2.2 Selection of Data Sources for Project-Level Savings Calculation

Upon completion of the data collection process, the evaluators performed a desk review of the available data and determined the optimal savings calculation methodology. The evaluators referred to several sources in order to estimate savings for each measure type due to the comprehensive scope of measure types included in the SEDAC program. Deemed savings values and stipulated calculation procedures from the Illinois Statewide TRM were the primary means for estimating savings. For measures not included in the Illinois Statewide TRM, other sources and methods were referred to. These other sources included procedures outlined in the Ohio TRM, the use of eQUEST energy simulation software, and ASHRAE handbooks.

2.3 Estimating Program-Level Net Savings

This section provides a detailed explanation of how net savings were calculated for the EPY4/GPY1 program year.

2.3.1 Implementation Lag Time

During interviews with EPY4/GPY1 participants, the evaluators found that there was typically a lag between when participants received the SEDAC audit report and when they chose measures for implementation and completed the implementation. Typically, this lag time was about six months to two years, with most facilities toward the latter end of that range. The lag is partially a reflection of the public sector entities that participate in the program. Decision making about the recommendations and budget approvals can take significant time because multiple stakeholders (e.g., governing boards, budgeting committees) are typically involved in making these types of decisions. Thus, it is a reasonable and conservative assumption that the savings reported as attributable to the SEDACP will not be fully realized until approximately two program years after the audit reports have been issued. For example, facilities that had received reports in EPY4/GPY1 were only recently (i.e., EPY6/GPY3) finishing the implementation of ECRMs. Therefore, EPY4/GPY1 projects realized savings in EPY6/GPY3 and EPY5/GPY2 projects achieve full savings in EPY7/GPY4.

2.3.2 EPY4/GPY1 Program Net Savings

After the desk reviews were completed for EPY4/GPY1 projects, the calculated savings were then extrapolated to the program population. The total sample of projects represented facilities

for which the evaluators were able to confirm no savings or some savings with certainty. The final sample was 29 projects. The total program population for EPY4/GPY1 was then divided by the sample figure. This ratio was then multiplied by the total realized net savings that was determined at the project level. This procedure was applied to extrapolate kWh, kW and therm savings to the program level, respectively.

*Program Savings = Total Project Savings * (Population of Projects/Sample of Projects)*

Equation 2-1

2.4 Net Savings Summary

This section presents the results of the impact evaluation from the methodology described in the preceding sections.

As shown in Table 2-1, the realized net electric savings for the EPY4/GPY1 program year totaled 1,776,875 kWh.

Table 2-1 Net kWh Savings Summary EPY4/GPY1

Program Component	*Total EPY4/GPY1 Realized kWh Net Savings*	*Total EPY4/GPY1 Recommended kWh Savings*	*Ratio of EPY4/GPY1 Realized/Recommended Savings*
Ameren	611,473.3	21,330,178	2.87%
ComEd	1,165,402.1	37,058,640	3.14%
Total	1,776,875.4	58,388,818	

As shown in Table 2-2, the realized net peak electric savings for the EPY4/GPY1 program year totaled 647.6 kW.

Table 2-2 Net kW Savings Summary EPY4/GPY1

Program Component	*Total EPY4/GPY1 Realized kW Net Savings*	*Total EPY4/GPY1 Recommended kW Savings*	*Ratio of EPY4/GPY1 Realized/Recommended Savings*
Ameren	179.1	3,635	4.93%
ComEd	468.5	4,433	10.57%
Total	647.6	8,068	

As shown in Table 2-3, the realized net natural gas savings for the EPY4/GPY1 program year totaled 17,131 therms.

Table 2-3 Net Therm Savings EPY4/GPY1

Program Component	*Total EPY4/GPY1 Realized Therm Net Savings*	*Total EPY4/GPY1 Recommended Therm Savings*	*Ratio of EPY4/GPY1 Realized/Recommended Savings*
Ameren	-	912,527	0.00%
Nicor	4,061	744,946	0.55%
Peoples	-	1,181,473	0.00%
North Shore	13,070	297,563	4.39%
Total	17,131	3,136,509	

3. Process Evaluation

This chapter discusses results of the Smart Energy Design Assistance Center Program process evaluation for EPY1 to EPY4/GPY1. The purpose of the process evaluation is to assess the structural, operational, and managerial perspective of the Program in order to identify Program strengths, weaknesses, and opportunities. This evaluation is based upon analysis of Program structure and surveys with participating SEDAC participants, interviews with SEDAC staff members, and an assessment of internal documents such as participant-directed internal course evaluations.

This chapter begins with a summary and discussion of the results from the EPY1 to EPY4/GPY1 SEDACP participant survey, followed by a review of internal course evaluations completed by SEDACP participants. The chapter concludes by highlighting and discussing the outcomes of in-depth interviews conducted with SEDAC staff members who are responsible for managing the SEDAC Program.

3.1 Evaluation Objectives

The purpose of the process evaluation is to examine program operations and results throughout the program operating year, and to identify potential program improvements that may prospectively increase program efficiency or effectiveness in terms of participation and satisfaction levels. This process evaluation was designed to document the operations and delivery of the SEDAC Building Energy Assessment Program across the past four program years, focusing on the most recent program year. Figure 3-1 provides an overview of the evaluation process, including the research activities performed.

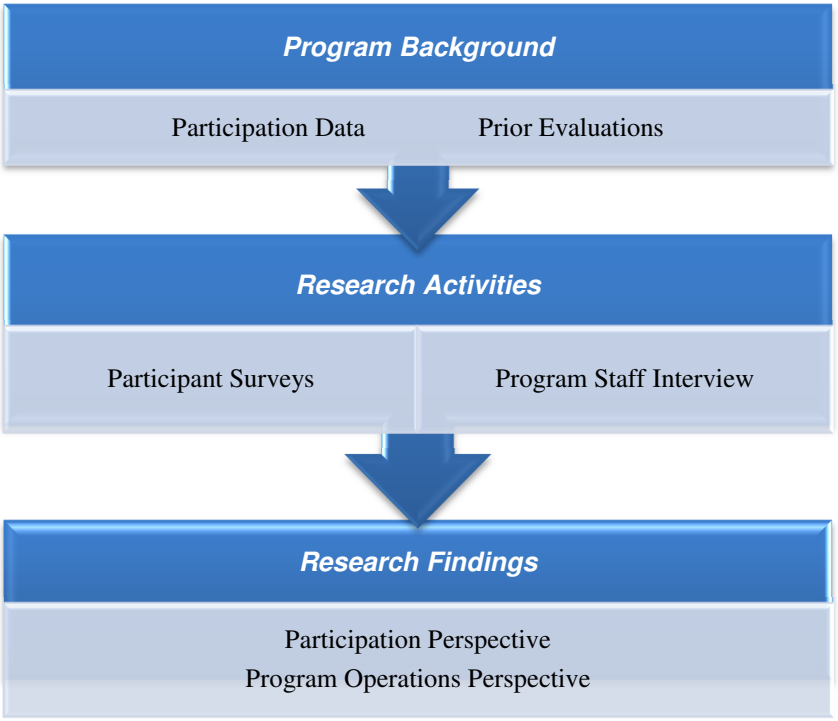


Figure 3-1 Process Evaluation Overview

Key research questions to be addressed by this evaluation of EPY4/GPY1 activity include:

> *Is the SEDAC Building Energy Assessment Program using its available resources in a way that sufficiently supports program operation, growth, and performance?*
>
> *Is the SEDAC Building Energy Assessment Program effectively engaging participants and meeting their energy efficiency and educational needs?*
>
> *Did the SEDAC Building Energy Assessment Program respond to previous recommendations obtained through prior evaluation efforts?*
>
> *Did the SEDAC Building Energy Assessment Program reduce barriers to increased energy efficiency project implementation?*

During the evaluation, data and information from several sources were analyzed to achieve the stated research objectives. Insight into the participant perspective on the program was developed from a telephone and email survey of SEDAC assessment participants. The internal organization and operational efficiency of program delivery was examined through analysis of interviews conducted with 360 Energy Group staff and SEDAC staff, as well as a review of program documentation such as promotional literature and participant tracking data.

3.2 Summary of Primary Data Collection

- Participant surveys: Participant surveys serve as the foundation for understanding the participant perspective. The participant surveys provide participant feedback and insight regarding participant experiences with the SEDAC Building Energy Assessment Program. Respondents report on their satisfaction with the program, detail their motivations and the factors affecting their decision making process, and provide recommendations related to improving the program. For EPY1 through EPY4/GPY1 of the SEDAC Building Energy Assessment Program evaluation, 165 assessment participants responded to the participant telephone survey.
- Interviews with 360 Energy Group and Smart Energy Design Assistance Center (SEDAC) staff members: Interviews with staff members from DCEO's implementation partners, SEDAC and 360 Energy Group, provide insight into various aspects of the program and its organization. These staff members also provide information regarding recent organizational and procedural improvements that have been implemented in order to enhance program efficiency and effectiveness. For the SEDAC Building Energy Assessment Program evaluation, the evaluators conducted in-depth interviews with key staff members from 360 Energy Group and SEDAC who were directly involved with managing and operating the assessment program.

3.3 Summary of Program Participation Levels

This section outlines the overall participation rates and utility distribution of participation for the SEDAC Building Energy Assessment Program from EPY1 through EPY4/GPY1. The values provided in this section of the chapter are based on program tracking data exports, which included participant details for multiple program years.

The following table displays the number of building energy assessment reports that were provided to participants in each program year. The totals are disaggregated by participant business sector. In EPY4/GPY1 of the SEDAC Building Energy Assessment Program, there were 204 assessment reports provided to a combination of nonprofit, private, and public business facilities. EPY3 and EPY4/GPY1 experienced the highest number of assessment participants of the four program years, and the total number of reports provided throughout the four years is 777. Public sector participants were the most common participating business sector throughout the four years with 425 reports, followed by private businesses with 302 reports and finally nonprofit participants with 50 total reports.

Table 3-1 Participation for EPY1 through EPY4/GPY1 by Business Sector

Program Year (June - May)	*Business Sector*			*Total*
	Nonprofit	*Private*	*Public*	
EPY1	-	106	74	180
EPY2	-	93	95	188
EPY3	19	56	130	205
EPY4/GPY1	31	47	126	204
Total Reports	50	302	425	777

In terms of the distribution of utility services across program participants, ComEd was associated with the highest number of energy assessments through SEDAC among the electric providers in EPY4/GPY1 with 101, followed by Ameren with 91. Ameren was associated with the most energy assessments among gas service providers in EPY4/GPY1 with 76, followed by Nicor with 65.

Table 3-2 EPY4/GPY1 Program Participation by Utility Service Provider

Gas EEPS Utility	*Electric EEPS Utility*					*Total*
	None	*Ameren*	*Nicor*	*North Shore*	*Peoples*	
None	4	5	2	-	-	11
Ameren	14	70	7	-	-	91
ComEd	4	1	56	11	29	101
Muni	1	-	-	-	-	1
Total	23	76	65	11	29	204

3.4 Participant Outcomes

A telephone and email survey was conducted to collect data about participant decision-making, preferences, and opinions of the SEDAC Building Energy Assessment Program. From EPY1 to EPY4/GPY1, 777 participants received an energy audit and associated measure recommendations in their facilities through the program. In total, 165 participants from EPY1 through EPY4/GPY1 responded to the survey.

It is important to the note that, while the survey results discussed below were not used in the calculation of the net savings attributable to the program. Net savings were assessed during telephone and in-person interviews with participants. The survey results in this chapter provide a qualitative discussion of participant responses.

3.4.1 Respondent Role in Decision Making

In order to determine individual respondents' involvement with the implementation of ECRMs in their facilities, participants were asked about their specific roles. Twenty-seven percent of respondents reported that they were the main decision maker in the implementation process,

while a majority (68%) indicated that they assisted with the ECRM implementation decision. Only five percent of respondents stated that they were not directly involved with the decision making process. This suggests that nearly all of the survey respondents had either influenced the ECRM implementation or observed and participated in the decision making and planning activities that preceded the implementation.

Table 3-3 Respondent Role in Decision Making Process

	Response	*Percent of Respondents (n=165)*
What was your role in the decision making process to implement the recommended energy cost reduction measures (ECRMs)?	Main decision maker	27%
	Assisted with the decision	68%
	Was not part of the decision process	5%

3.4.2 Program Awareness and Information Channels

SEDAC Building Energy Assessment Program participants were asked a series of questions to gain insight into general program awareness and to gauge participant interaction with various marketing and information channels.

First, respondents were asked how they learned about the SEDAC Building Energy Assessment opportunity, and were allowed to provide multiple responses. As shown in the table below, 45% of respondents reported that they learned of the assessments through the SEDAC website, while 43% of respondents indicated learning about the program through a SEDAC representative. These findings suggest that a high majority of respondents learned about the SEDAC Building Energy Assessments opportunity through direct SEDAC or DCEO sources, which may provide validation for SEDAC's current marketing and promotion procedures. Additionally, 40% of respondents indicated that they learned about the assessments through a friend or colleague, suggesting that program awareness is effectively growing via word of mouth. Word of mouth marketing is typically one of the most common drivers of awareness after an incentive opportunity or energy efficiency initiative has progressed past its initial ramp up stages. By contrast, very few respondents reported learning about the SEDAC Building Energy Assessments through an equipment vendor or contractor, and none of the respondents cited an Energy Resource Center representative.

Table 3-4 How Respondents Learned of the SEDAC Assessment Opportunity

	Response	*Percent of Respondents* (n=112)*
How did you learn about SEDAC Building Energy Assessments?	The SEDAC Website	45%
	From a representative of Smart Energy Design Assistance Center (SEDAC)	43%
	Friend or colleague	40%
	Attended a conference workshop or seminar	29%
	A DCEO representative mentioned it	27%
	The DCEO Website	23%
	An architect, engineer or energy consultant	22%
	Trade association or business group you belong to	21%
	Brochures or advertisements	17%
	Other (please describe)	17%
	Past experience with the program	15%
	From a utility representative	14%
	An energy service company (ESCO)	9%
	Equipment vendor or building contractor	7%
	Trade journal or magazine	4%
	From a representative of the Energy Resource Center (ERC)	-

*Since respondents were able to select more than one response, the sum of the percentages in the table above can exceed 100%.

When asked which sources they rely on for information about energy efficient practices, equipment, materials and design features, respondents provided a wide range of responses. As shown in the table below, nearly two-thirds (64%) of respondents reported that they rely on architects, engineers, or energy consultants for this type of information, while 60% of respondents stated that they rely on SEDAC representatives. The majority of respondents provided multiple responses to this question, indicating that many participants use a combination of sources when seeking information about energy efficiency. This provides an opportunity for participants to receive information from individuals and organizations with distinct perspectives and priorities.

It should be noted that three of the most commonly cited information sources (the SEDAC website, SEDAC representatives, and friends and colleagues) were the three sources that respondents most often identified for how they learned about the SEDAC Building Energy Assessments opportunity. This suggests that information about the SEDAC opportunity is being effectively distributed through channels that are actively monitored by potential program participants, which is a crucial component of widespread program awareness.

Table 3-5 Sources Used by Respondents for Energy Efficiency Information

	Response	*Percent of Respondents* (n=165)*
What are the sources your organization relies on for information about energy efficient practices, equipment, materials and design features?	Architects, engineers or energy consultants	64%
	Representatives of the Smart Energy Design Assistance Center (SEDAC)	60%
	The SEDAC Website	52%
	Friends and colleagues	48%
	Equipment vendors or building contractors	47%
	Trade associates or business groups you belong to	41%
	Utility Representatives	40%
	Trade journals or magazines	38%
	DCEO Representatives	36%
	The DCEO Website	35%
	Brochures or advertisements	32%
	Representatives of the Energy Resource Center (ERC)	15%
	Other (please describe)	8%

*Since respondents were able to select more than one response, the sum of the percentages in the table above can exceed 100%.

3.4.3 Organizational Structure and Decision Making

In order to gauge participants' organizational structures, priorities, and behavioral processes, survey respondents were asked to answer several questions regarding the characteristics of their energy efficiency decision making procedures.

When asked how their organization decides to make energy efficiency improvements at their facilities, respondents most commonly reported that these decisions are made by a group or committee (37%) or by one or two key people (35%). Twenty-eight percent of respondents stated that energy efficiency improvements are based on staff recommendations to a decision maker. Differences in decision maker formats may affect various aspects of overall energy efficiency decision making, such as which types of marketing are most effective, which measures or initiatives are likely to be approved, and the speed at which organizations are able to consider and approve potential energy efficiency improvements.

Table 3-6 Respondent Organizational Decision Making Group

	Response	*Percent of Respondents (n=161)*
How does your organization decide to make energy efficiency improvements for this facility? Is the decision:	Made by a group or committee	37%
	Made by one or two key people	35%
	Based on staff recommendations to a decision maker	28%
	Made in some other way	3%

Respondents were then asked how their organization funds energy efficiency improvements, and some individuals provided multiple responses. Respondents most commonly indicated that the funds are taken from the general operation and maintenance budget, while majorities (51%) of respondents fund these improvements through a capital request. Only 18% of respondents reported that they have dedicated funding for energy efficiency projects. Although organizations with dedicated energy efficiency projects may be more likely to adopt various energy efficiency improvements, organizations that share a general fund may be more responsive to energy initiatives that minimize costs to the organization or provide services that do not require direct upfront investments.

Table 3-7 Respondent Organizational Funding for Energy Efficiency

	Response	*Percent of Respondents* (n=165)*
How does your organization fund energy efficiency improvements?	Funds are taken from operation and maintenance budget	77%
	Through a capital request	51%
	Dedicated funding for energy efficiency projects	18%
	Other	11%

*Since respondents were able to select more than one response, the sum of the percentages in the table above can exceed 100%.

Respondents were then asked to provide information regarding the approval process for equipment purchases in their organizations. As shown in the table below, respondents most commonly explained that this process depends on the amount of the purchase. Many of these respondents provided additional information, citing the separate approval processes that typically occur depending on the purchase amount. With regard to specific approval processes, 47% of respondents indicated that an open bid is required for equipment purchases, while 41% stated that their organization follows state or federal procurement guidelines. Twenty-nine percent of respondents stated that they are required to select the lowest bid received from vendors. Only 10% of respondents indicated that they use a specific vendor. These results suggest that participants may not have contractual or established working relationships with individual vendors, but are required to rely on the marketplace for their purchasing decisions.

Table 3-8 Respondent Organizational Equipment Purchase Process

	Response	*Percent of Respondents* (n=162)*
What is the approval process for equipment purchases in your organization?	Depends on the amount of purchase	74%
	Follow procurement rules specific to our organization	53%
	An open bid is required	47%
	Follow state or federal procurement guidelines	41%
	Required to select lowest bidder	29%
	Use a specific vendor	10%
	Other	4%
	Don't Know	1%

*Since respondents were able to select more than one response, the sum of the percentages in the table above can exceed 100%.

When asked whether their organizations are able to use incentive or grant payments received from energy efficiency improvements, the majority (55%) reported that they are able to use these funds for further facility improvements. Approximately one-third of respondents reported that these payments are placed in a general fund, and one respondent reported that the payments are placed into the state general revenue fund. Facilities that are able to use incentive dollars for further improvements may be likely candidates for savings spillovers and may be generally more active in lowering energy use, as they can implement additional energy saving initiatives that they may not have done without the program incentive or grant payments.

Table 3-9 Respondent Utilization of Incentives and Grant Payments

	Response	*Percent of Respondents (n=100)*
Is your organization able to utilize incentive or grant payments you receive for energy efficiency improvements or are the payments placed into a general fund?	We are able to use the incentive payments for additional facility improvements	55%
	Incentive payments return to the facility general operating fund	32%
	Don't know	9%
	Other	3%
	Incentive payments go into the state general revenue fund	1%

In order to gather further information regarding energy efficiency investment requirements and priorities, respondents were asked which financial methods their organization uses for evaluating energy efficiency improvements. As shown in the table below, respondents most commonly (74%) stated that they use simple payback for this type of evaluation, while 64% of respondents reported that they assess the initial cost of the improvement. Additionally, 46% of respondents reported using internal rate of return while 42% indicated that they evaluate the life cycle cost of

the investment. Respondents reporting the use of simple payback or internal rate of return were asked to provide information about their payback periods and rate thresholds; the average reported payback period was 4.7 years while the average reported rate of return was 14%. These results suggest that participants are using several methods to evaluate energy efficiency investments, as they are highly focused on the financial aspects of their implementation decisions.

Table 3-10 Financial Methods Used by Respondent Organizations

	Response	*Percent of Respondents* (n=100)*
Which financial methods does your organization typically use to evaluate energy efficiency investments?	Simple Payback	74%
	Initial Cost	64%
	Internal rate of return	46%
	Life cycle cost	42%
	None of these	8%

*Since respondents were able to select more than one response, the sum of the percentages in the table above can exceed 100%.

When asked about which policies or procedures they have in place for making energy efficiency improvements, the majority (54%) of respondents reported that they have a staff member who is responsible for energy and energy efficiency. Respondents were able to provide more than one response, and 42% stated that their facility has policies incorporating energy efficiency into operations and procurement activities. Relatively fewer respondents (19%) indicated that their facilities use an actual energy management plan. Seventeen percent of respondents reported that their facility does not have any policies or procedures in place for making energy efficiency improvements.

Table 3-11 Organizational Policies and Procedures for Energy Efficiency

	Response	*Percent of Respondents* (n=156)*
Which of the following policies or procedures does your organization have in place regarding energy efficiency improvements at this facility?	A staff member responsible for energy and energy efficiency	54%
	Policies that incorporate energy efficiency in operations and procurement	42%
	Active training of staff	29%
	An energy management plan	19%
	None	17%
	Other (please specify)	7%

*Since respondents were able to select more than one response, the sum of the percentages in the table above can exceed 100%.

Respondents who indicated that their facility uses an energy management plan were asked about the goals of these plans. While 17% of these respondents reported that their energy management plans do not have specific goals, the remaining respondents elaborated on these goals. The

majority of these respondents provided qualitative explanations of their energy plans, such as describing the general goal of choosing energy saving improvements when possible and continually seeking ways to implement energy saving operational procedures. Several respondents provided goals in the form of specific energy reduction targets, such as reducing energy use by five percent each year, reducing total usage by 30% over five years, or specifically reducing paper use or water use by 10-20%. A few respondents explained that their energy management plans were focused on implementing specific projects, such as replacing facility lighting with LEDs or to continually monitor air conditioning use in order to reduce cooling loads.

3.4.4 Barriers to Energy Efficiency

In order to gain insight into potential challenges and opportunities related to improving the appeal of energy efficiency, respondents were asked to provide information regarding any perceived barriers to making energy efficiency improvements. As shown in the table below, more than three-quarters (76%) of respondents reported that insufficient funding for making improvements is a primary barrier to energy efficiency. This was by far the most common response, which suggests that any incentives or no-cost services provided by energy efficiency initiatives would be highly valued and effective in motivating organizations to implement improvements. One-quarter of respondents reported that they have existing equipment that is too new to be replaced, which may prevent them from implementing specific efficiency improvements. However, these facilities may be able to implement efficiency improvements that do not require removal of newly purchased equipment.

Twenty-four percent of respondents indicated that incentive programs require too much time or effort on the part of participants, which suggests that there may be an opportunity for energy efficiency programs to improve participation by reducing the time or effort burden. Twenty-one percent of respondents stated that they do not have enough information about energy efficient options such as equipment, although these respondents typically also stated that they rely on multiple sources for energy efficiency information. Approximately 30% of respondents cited barriers related to their organization's structure, including difficult or slow approval processes or prohibitive purchasing and maintenance schedules. Organizations with these characteristics may need additional consulting from program staff or flexible program timelines in order to effectively approve and implement energy efficiency improvements.

Table 3-12 Respondent Reported Barriers to Measure Implementation

	Response	*Percent of Respondents* (n=119)*
What barriers does your organization face in making energy efficiency improvements?	Insufficient funding for improvements	76%
	Current equipment that is too new to be replaced with more efficient equipment	25%
	Incentive program time requirements	24%
	Lack of information on energy efficient equipment and practices	21%
	Approval processes that slow or make purchasing difficult	18%
	Other	12%
	Schedules that dictate when equipment is to be replaced or maintained regardless of efficiency levels	11%
	Don't Know	4%

*Since respondents were able to select more than one response, the sum of the percentages in the table above can exceed 100%.

During the survey, respondents were asked various questions regarding the energy efficiency measures that they had implemented as a result of the SEDAC Building Energy Assessment. Through these questions, respondents were asked to identify any measures that they had not yet implemented but that they may implement in the future. Respondents were then asked why they had not implemented these measures. As shown in the table below, these respondents most commonly reported (63%) that they do not have sufficient funds to implement the remaining measures. Fifty-nine percent of respondents stated that their organizations currently have other priorities for capital improvement projects, which implies that the energy efficiency measures may be implemented after those priorities are met. These results are in agreement with the overall barriers cited above.

Table 3-13 Reasons for Measure Implementation Delays

	Response	*Percent of Respondents* (n=111)*
For the ECRMs that you have not implemented, but may implement in the future, why have you not implemented them yet?	Delays in getting approval for the project(s)	17%
	Insufficient funds to implement the project(s)	63%
	Other priorities for capital improvement projects	59%
	Savings not great enough to make the project a priority	38%
	Other	12%
	Don't know	1%

*Since respondents were able to select more than one response, the sum of the percentages in the table above can exceed 100%.

Respondents also indicated measures that they had not installed and were unlikely to install in the future. When asked why they do not plan to implement these measures, these respondents most commonly stated (79%) that the savings associated with the remaining measures were not high enough to justify the implementation cost. As the majority of survey respondents stated that they are highly focused on the financial aspects of energy efficiency implementation, and that they use multiple methods to evaluate efficiency investments, projects that do not meet the organizations' requirements are unlikely to receive funding through either a dedicated energy efficiency fund, capital request, or shared implementation fund. These respondents would likely need additional incentives or would have to modify their investment requirements in order to consider implementing the remaining measures.

Table 3-14 Persistent Barriers to Implementing Specific Measures

	Response	*Percent of Respondents* (n=52)*
For the recommended ECRMs that you do not plan on implementing, why do you not plan on implementing them?	Insufficient funds to implement project(s)	58%
	Other priorities for capital improvement projects	62%
	Savings not great enough to justify the cost	79%
	Don't know	-
	Other	-

*Since respondents were able to select more than one response, the sum of the percentages in the table above can exceed 100%.

3.4.5 Participant Satisfaction with the Program

Respondents were asked about their levels of satisfaction with selected aspects of the assessment, performance with any installed measures, and their overall program experience. Responses were provided on a scale from very dissatisfied to very satisfied. The following table shows participant satisfaction by each selected program element. Overall, participants reported high satisfaction levels for all program elements, most notably with the professionalism of SEDAC staff members and with the usefulness of the energy assessment. Ninety-six percent of the survey respondents were either satisfied or very satisfied with their overall program experience, and very few of the respondents indicated dissatisfaction with any of the program elements.

Table 3-15 Participant Satisfaction with Selected Program Elements

Element of Program Experience	*Satisfaction Rating*					
	Very Satisfied	*Satisfied*	*Neither Satisfied nor Dissatisfied*	*Dissatisfied*	*Very Dissatisfied*	*n*
Professionalism of SEDAC staff	88%	9%	2%	-	1%	159
Overall program experience	76%	20%	4%	-	1%	160
Usefulness of assessment	71%	25%	3%	1%	1%	160
ECRM savings credibility	69%	25%	4%	1%	1%	157
Program application process	68%	24%	7%	-	1%	154
Information regarding financial incentives	60%	31%	7%	2%	1%	154
Performance of installed measures	56%	30%	13%	-	1%	158

Respondents who reported being dissatisfied with one or more elements of their experience were asked to elaborate on the reasons for this dissatisfaction. The responses were mainly anecdotal in nature and were primarily related to minor issues regarding the effort required to participate in the program or the overall usefulness of the audit. Some participants explained that while they had gained valuable information from the assessment process, they would have liked to receive more specific or in-depth recommendations. Specific commentary related to participant dissatisfaction includes:

> *"[I] expected more applicable, fiscally possible recommendations."*

> *"It took them a very long time to assess the building. It took four months to show up then two months to get the equipment in the building, and two months to ask for the report."*

> *"It was not detailed enough, it didn't get into payback or return on investment."*

> *"There is a lot of paperwork to do to apply, and receive the rebates."*

Respondents were also given an opportunity to provide open-ended feedback regarding their perspective on the effectiveness and overall structure of the SEDAC Building Energy Assessment Program. Many of the respondents used this opportunity to provide praise for the program, citing the high value of the information they received through the assessment and complimenting the professionalism of program staff. Examples of this type of feedback include:

> *"It's an excellent program, which we're hoping to move forward in the next 1 - 2 years. We'll also use what we've learned on a new building we're planning for now."*

> *"It was a very educational experience and although we have not implemented the recommendations to date, the assessment will determine the direction we will work towards."*

> *"This project is our third facility assessment and with the first one in 2010 it helped us renew our commitment to environmental initiatives. Not only are we saving on our energy bills but we are operating more efficiently. Thank you to DCEO and SEDAC for your professional assistance and for the grants."*

> *"Staff is very knowledgeable and the reports are very accurate. Our board likes the rate of return information we get. The savings have been realized."*

> *"The 360 Energy Group through their program has been extremely helpful in identifying and applying for rebates, the process has caused us to focus more thoroughly on energy reduction methods."*

Finally, some respondents provided recommendations or suggestions for how the program could be improved in future years. These recommendations were primarily related to specific measures that participants would like more information about, or to structural or design-related improvements that may increase program efficiency. For example, one participant requested that future assessments place a larger emphasis on water efficiency, while another participant suggested notifying participants about measure incentives as they become available, which would allow them to better take advantage of the knowledge gained through the assessment. Several participants provided recommendations that were more related to overall DCEO measure incentives than to the SEDAC Building Energy Assessment Program. Additional examples of participant recommendation feedback include:

> *"I'd like to see more emails to make sure everybody's aware [of the program]."*

> *"[I] hope that someday it will include formal training for HVAC professionals which helps them identify savings through maintenance management systems."*

> *"It would be nice if the projects could span two DCEO funding years, [so] we could get approval in the winter, install over the summer, and get the rebate in the summer or fall."*

These results suggest that the SEDAC Building Energy Assessment Program is sufficiently addressing participant needs and interests, and is operated effectively overall from the participant perspective. There may be opportunities to modify the program in order to meet participant interests and needs over time, but there do not appear to be any consistent trends within participant commentary that suggest the need for a specific improvement or change.

3.4.6 Participant Recommendations and Overall Impressions

Overall, the participant surveys showed that participants were generally pleased with their program experiences. The majority of course feedback was positive, and many of the respondents provided commentary that praised the SEDAC assessment for its informative and professionally calibrated structure. Many respondents cited specific examples of projects that they had become aware of through the audit process, or noted that they had learned enough details about specific measures to proceed with the implementation.

Respondents provided few instances of dissatisfaction with the SEDAC Building Energy Assessment program and for the most part did not indicate any systematic or major issues with program structure, management, or operation. These results suggest that the SEDAC program has been very well-received by participants, and that it is encouraging specific and persistent energy reduction initiatives.

3.5 Program Operations Perspective

This section summarizes the core findings of interviews that were conducted with the SEDACP implementation and program management staff.

In order to gather information regarding the operational efficiency and program delivery process for SEDACP, in-depth interviews were conducted with key program implementation and management staff from SEDAC and the 360 Energy Group.

Funded by DCEO, SEDAC was established in 2005 to provide energy efficiency analysis and advice to public and private institutions in Illinois. In 2007, 360 Energy Group was established to support SEDACP and in 2009, it expanded its offering to include the support of the RCx Program. Services provided by 360 Energy Group include implementation, oversight, outreach, education, and training.

Key program operations and management staff members from SEDAC were asked about the organization, program goals, roles, communication, promotion, barriers, and energy opportunities associated with the SEDACP. Below is a summary of the findings from the interviews:

- **Organizational Structure Change:** When SEDAC was originally established, the organization had a relatively flat structure. There was little to no distinction between roles, and employees engaged in multiple tasks that allowed for overlaps among staff member responsibilities. Currently, the organization is hierarchical in nature and the roles are much more defined. There is now an executive management team, a senior leadership group, and a director that oversees the senior leadership group.
- **Program Goals:** Goals, which are often dependent on the budget, are jointly set by SEDAC and DCEO in a negotiated process. The primary goals of the program are to increase the number of audits produced each year by utility service, maintain or increase

cost effectiveness, and increase overall energy savings. Secondary goals include: (1) educating individuals/organizations to make smart choices in terms of energy, (2) helping individuals/organizations to understand the benefits of energy efficiency, (3) providing information leading towards implementation of energy efficiency measures, and (4) assisting with program applications.

- **Distinction between SEDAC and 360 Energy Group:** Although SEDAC and 360 Energy Group are separate entities, they work together to ensure that the program runs smoothly. SEDAC, as a public organization, is bureaucratic and not motivated by profit. As SEDAC operates very similarly to DCEO, it is able to maintain seamless integration and a fluid contractual relationship with the state. SEDAC conducts the majority of in-depth critical analysis, and frequently interacts with the participants in order to guide them through the participation process. SEDAC sets program expectations and goals, and primarily controls the program process. 360 Energy Group's primary roles are program co-administration; outreach; marketing; managing, educating, and training the Design Assistance Experts (DAE) and Retro-Commissioning Service Providers; overseeing energy assessments thru provider network and coordinate report-writing activities. Given that 360 Energy Group is a private organization, it is dynamic, efficient, and effective at contracting outside of its own walls. Specifically, 360 Energy Group serves as a conduit to the private sector and energy providers. It is also better able to engage the energy industry as a whole financially, which assists in bringing in projects and generating jobs. Due to the value and expertise that both organizations bring to the program, they rarely seek assistance from outside organizations.

  Communication with DCEO: SEDAC respondents are generally satisfied with the quality and quantity of their communication with DCEO. DCEO and SEDAC staff engage in weekly conference calls to discuss the status of projects. There are also close working relationships between the senior leadership staff of both organizations. Lines of communication are constantly open, which enables both organizations to easily obtain all the info that is needed from the other.

- **Marketing:** Although SEDACP is aimed at public sector entities, it also directs marketing efforts to private sector entities and businesses. SEDAC staff conducts presentations for specific groups, such as the Illinois Association of School Board Officials as well as other associations.

- **Barriers to Program Promotion:** The main barrier in promoting SEDACP was the lack of access to capital, given budgetary restrictions. Lack of energy efficiency literacy and understanding was also another key barrier, which is why SEDAC is so heavily focused on distributing energy efficiency education and information. Respondents noted that operational efficiency was an area in which SEDAC was lacking, and specifically mentioned that the audit process is a long and drawn out one. Respondents noted that the entire process takes approximately four months.

- **Energy Saving Opportunities:** With regard to building types, SEDAC staff indicated that most energy saving opportunities were associated with medium-sized buildings. Examples include: park district facilities, libraries, sewage treatment facilities, and fire/police stations. In terms of future opportunities with specific energy efficiency measures, interviewed SEDAC staff explained that lighting, variable-frequency drives, and demand-controlled ventilation were most promising.

Respondents from 360 Energy Group discussed their perspective on program structure, operations, and marketing. The key findings from these discussions are summarized below.

- **Participation Process:** The first step to participation is to complete a one page application from the SEDAC website. A staff member from 360 Energy Group receives those applications and conducts a prescreening with the interested party, which involves a phone conversation and site visit when appropriate. The 360 Energy Group staff member will then assess the needs and interests of the participant and provide a cost and energy savings summary to help the participant better understand the financial requirements and payoffs.

  There are three levels of service available. The first is over the phone consultation that includes providing recommendations to the participant. The second level of service is an energy bill analysis and a site or design review with associated recommendations. The third level is a more detailed design review with software modeling and in-depth analysis. Additionally, SEDAC requires buildings that participate in the third level of support to have over 20,000 sq feet of building space.

- **Qualifications:** To qualify, the participant should typically have one dollar's worth of potential energy savings per square foot of building space. The participant must also operate a building in one of the participating investor owned utilities' service territories.

- **Two Data Systems are Used to Facilitate Information Sharing:** 360 Energy Group uses two primary data systems, Microsoft Sharepoint and Microsoft Access hosted by SEDACP at the University of Illinois, to facilitate communication, share project documentation, and archive reports. The sites are hosted and maintained by 360 Energy Group. DCEO and SEDAC have access to these systems with a secure login. This data system allows all parties to efficiently access and modify information as needed when analyzing program participation, conducting savings assessments, and performing other operational tasks.

- **Multiple Marketing Channels:** 360 Energy Group markets the program and engages in outreach efforts. The primary means of marketing the program include the SEDAC website, presentations at partner association events, industry workshops, email blasts, and training sessions. This is consistent with comments from participant survey respondents, who mentioned learning of the program through these channels. Moreover, participant survey respondents cited several of these channels as being their primary sources for

information about energy efficiency. Feedback from program staff and participants suggests that the current level of program marketing is sufficient for encouraging participation and spreading program awareness to the participant population.

- **Increasing Number of Design Assistance Experts (DAE):** 360 Energy Group currently works with approximately 60 different architecture and engineering companies who are interested in providing design assistance services. The companies that specifically work with the SEDACP are referred to as Design Assistance Experts (DAE's.) These firms are not only staying current with industry best practices but also are interested in networking with peers and potential participants.

  360 Energy Group has succeeded in increasing the number of DAEs affiliated with the program. The number of service providers has nearly doubled every program year since its conception. In PY3 there were 54 individuals, in EPY4/GPY1 there were 79 individuals, and in EPY5/GPY2 there were 116 individuals participating in SEDAC information learning sessions. The growth in the number of DAEs is critical to the future success of the program because of the role they play in the marketing and promotion process.

4. Conclusions and Recommendations

This section presents a review of the key findings of the impact and process evaluations.

4.1 Impact Evaluation Results

The results of the impact evaluation are provided in this section. Net electric savings for EPY4/GPY1 totaled 1,776,875.4 kWh and 647.6 kW. Net gas savings for GPY1 totaled 17,131.1 therms.

Table 4-1 Summary of Net kWh and kW Savings for SEDACP EPY4/GPY1

Program Component	*Realized Net kWh Savings*	*Realized Net kW Savings*
Ameren	611,473.3	179.1
ComEd	1,165,402.1	469.5
Total	1,776,875.4	648.6

Table 4-2 Summary of Net Therm Savings for SEDACP EPY4/GPY1

Program Component	*Realized Net Therm Savings*
Ameren	-
Nicor	4,061.1
Peoples	-
North Shore	13,070.0
Total	17,131.1

Estimated net electric savings for EPY5/GPY2 totaled 2,493,956 kWh and 1,098.1 kW. Estimated net gas savings for EPY5/GPY2 totaled 15,386 therms.

Table 4-3 Summary of Estimated Net kWh and kW Savings for SEDACP EPY5/GPY2

Program Component	*Estimated Net kWh Savings*	*Estimated Net kW Savings*
Ameren	438,631.3	109.7
ComEd	2,055,324.7	988.4
Total	2,493,956.0	1,098.1

Table 4-4 Summary of Estimated Net Therm Savings for SEDACP EPY5/GPY2

Program Component	*Estimated Net Therm Savings*
Ameren	-
Nicor	5,519.5
Peoples	-
North Shore	9,866.5
Total	15,386.0

4.2 Key Findings and Recommendations

The following section presents a summary of key findings from the process and impact evaluations of the SEDAC Program during the EPY4/GPY1-EPY5/GPY2 period. These conclusions and recommendations are based on a combination of research activities including participant surveys, interviews with program staff, and reviews of program tracking data, documentation, and prior evaluation reports.

The following is a summary of key conclusions from the EPY4/GPY1-EPY5/GPY2 evaluation of the SEDAC Program:

- **SEDAC Audit Reports are a Valued Resource for Participants:** All of the participants that were interviewed by ADM expressed a high level of satisfaction with the assessments and indicated that the SEDAC audit reports and recommendations were useful. In almost all cases, participants mentioned that the SEDAC reports identified energy cost reduction measures (ECRMs) at their facilities that would have otherwise gone unnoticed. Often, facilities are not inclined – or cannot afford – to conduct energy audits or receive consultations from engineering firms. SEDACP has provided an effective service for identifying potential ECRMs and the energy savings that can be achieved through implementing those ECRMs. Additionally, some respondents indicated that presenting SEDAC audit reports to stakeholder committees or board members can legitimize facility managers' requests for funds to implement the recommended ECRMs.

  Furthermore, participants mentioned that after the ECRMs were installed, they noticed reductions in energy usage at their facilities, and thus lower electric and/or gas costs.

- **SEDACP Often Serves as a "Gateway" Program to other DCEO Incentive Programs:** Interviews with facility decision makers revealed that a large number of ECRMs were installed with the aid of incentives from DCEO and/or utility programs. Indeed, each SEDAC audit report that is provided to decision makers contains a section that refers them to applicable DCEO grants and utility incentive programs. Most reports refer directly to the programs funded through the Energy Efficiency Portfolio Standard

(EEPS). Thus, decision makers were able to quickly identify which ECRMs could be incentivized and by which entity. Along with the energy audit results, the identification of available incentives is a critical and highly valued aspect of the program.

- **Non-Incentivized Savings Directly Attributable to SEDACP are Nominal:** Verified savings attributable to SECACP were relatively small compared to the total savings associated with all of the measures recommended by SEDACP. Most participants indicated that upon receiving the SEDAC audit report, they either a) decided to not implement the ECRMs at the time, or b) applied for incentives through DCEO or through their electric and/or gas utility to help cover the cost of implementing the ECRMs. In very few cases, participant facilities implemented SEDAC-recommended ECRMs without applying for and receiving outside incentives. This is not unexpected, given that a primary purpose of the program is to inform participants of the availability of incentives for making efficiency improvements.
- **Large Lag Time between Receiving Report and Implementing ECRMs:** In only a few instances did participants report being able to implement ECRMs shortly after receiving the SEDAC audit reports. Most decision makers at the participating facilities indicated that a period of 6 months to two years is required to fully implement the ECRMs. The elapsed time between when the recommendations are received and when they are implemented was often caused by budgetary cycle schedules and having to seek out board or committee approval for costs associated with installing ECRMs. This is not surprising, given that many organizations fund large energy efficiency improvements though annual capital budget requests. It is noteworthy that survey respondents reported that they did not plan to implement fewer than 15% of the recommended measures, suggesting that measures not yet implemented are likely to be in the future.
- **The Program is Improving Regional Capacity for Energy Efficiency:** The growing number of Design Assistance Experts (DAEs) indicates that SEDAC is building regional capacity in the energy efficiency and green building sectors. These market transformation effects may have an impact on energy efficiency in Illinois that persists independently of the SEDACP. Additionally, increasing numbers of DAEs and the continued efforts by program staff to promote the program are helping to inform and educate public sector building operators about the value of energy efficient buildings. This will likely assist in reducing barriers to energy efficiency within the participant population.
- **Quarterly Communication with Participants has been an Effective, Long-Term Strategy to Retain the Value of the Energy Assessment Provided**: Because the design assistance is free to the participants, they often do not have immediate intentions of installing the recommended measures or design features. SEDAC's objective is to identify all opportunities for energy savings; some projects have a higher payoff and can be completed in the short term, while other recommendations take several years to be approved by stakeholders before they are implemented because they require significant

capital investments. 360 Energy Group acknowledges these short and long term planning cycles, and schedules quarterly outreach efforts to ensure that the necessary support is available beyond the initial assessment.

The following is a summary of key recommendations from the EPY4/GPY1 evaluation of the SEDAC Program:

- **Expectations for SEDACP Savings from Projects Implemented Two Years After Assessment Should be Limited:** The SEDCAP is clearly designed to inform participants of ways that they can reduce their energy consumption and of how incentive programs can help offset the costs associated with making the improvements. As such, most facilities that implement recommended ECRMs also follow the recommendations to seek outside financial assistance for installing those ECRMs. Therefore, savings directly and solely attributable to SEDACP are expectantly low and are primarily limited to small projects with limited implementation costs.

  However, the value of the program for identifying savings projects was noted by several participants who indicated that they most likely would not have identified the energy saving measures had they not been recommended by SEDACP. This suggests that some of the savings for which incentives were received are likely partially attributable to the SEDACP, but cannot be claimed. To claim a portion of these savings for the program, an agreed upon framework for apportioning savings between SEDACP, DCEO and utility incentive programs is needed.

- **Use Utility Bills to Verify Account Numbers**: For a number of participants, account numbers for natural gas and electric utilities in the program tracking data were either missing, incorrect, or incomplete. Accurate account numbers are important for the evaluation effort because they are used to verify with participating utilities whether or not participants received incentives for implementing SEDACP recommendations. It is recommended that SEDACP staff use copies of electric and natural gas utility bills to verify the account numbers.

- **Continue Developing DAE Network:** 360 Energy Group has continuously developed its network of service providers in order to effectively distribute program information and resources to customers. These efforts should continue, as service providers are an important resource for increasing program activity and educating public sector decision makers about the benefits of energy efficiency improvements. It may be of value to focus recruitment efforts on firms that have established customers in Illinois. These service providers can capitalize on the trust already developed with participants to help educate them about the benefits of conducting energy saving projects.

Appendix A: Smart Energy Design Assistance Center Decision Maker Survey

1. Our records indicate that you received a Building Energy Assessment from the Smart Energy Design Assistance Center (SEDAC) for a facility located at [Location]. You received the energy assessment report with recommendations for energy cost reduction measures (ECRMs). This report recommended the following types of energy cost reduction measures (ECRMs): [List ECRM's]. Do you recall receiving this report?

    ( ) Yes
    ( ) No
    ( ) Don't Know

1A. Is there another person at your facility who we could speak with about the Energy Assessment report?

    ( ) Yes
    ( ) No
    ( ) Don't know

1B. Please provide the following information for this person.

    ( ) Name
    ( ) Phone number
    ( ) Email

[If No Please scroll to the end of the survey and click "Submit Survey."]

2. What was your role in the decision making process to implement the recommended energy cost reduction measures (ECRMs)?

    ( ) Main decision maker
    ( ) Assisted with the decision
    ( ) Was not part of the decision process

2A. Who was the main decision maker? If multiple people were responsible for the decision, please provide the name of the person you think is most knowledgeable about the decision making process to implement the ECRMs.

2B. What is this person's telephone number?

2C. What is this person's e-mail address?

3. What are the sources your organization relies on for information about energy efficient practices, equipment, materials and design features? (Select all that apply)

( ) DCEO Representatives
( ) The DCEO Website
( ) The SEDAC Website
( ) Utility Representatives
( ) Brochures or advertisements
( ) Trade associates or business groups you belong to
( ) Trade journals or magazines
( ) Friends and colleagues
( ) Representatives of the Smart Energy Design Assistance Center (SEDAC)
( ) Representatives of the Energy Resource Center (ERC)
( ) Architects, engineers or energy consultants
( ) Equipment vendors or building contractors
( ) Other (please describe)

4. Which of the following policies or procedures does your organization have in place regarding energy efficiency improvements at this facility? (Select all that apply)

( ) An energy management plan
( ) A staff member responsible for energy and energy efficiency
( ) Policies that incorporate energy efficiency in operations and procurement
( ) Active training of staff
( ) Other (please specify)
( ) None

4A. Does your energy management plan have goals for energy savings?

( ) Yes
( ) No
( ) Don't Know

4B. Could you describe the goals specified in your energy management plan?

5. How does your organization decide to make energy efficiency improvements for this facility? Is the decision:

( ) Made by one or two key people
( ) Based on staff recommendations to a decision maker
( ) Made by a group or committee
( ) Made in some other way

6. How does your organization fund energy efficiency improvements? (Select all that apply)

( ) Through a capital request
( ) Funds are taken from operation and maintenance budget
( ) Dedicated funding for energy efficiency projects
( ) Other

6A. Is there a dollar threshold for when a project requires a capital request? If so, what is it?

6B. How long does it take to receive approval for the capital request?

7. What is the approval process for equipment purchases in your organization? (Select all that apply)

( ) An open bid is required
( ) Required to select lowest bidder
( ) Use a specific vendor
( ) Depends on the amount of purchase
( ) Follow state or federal procurement guidelines
( ) Follow procurement rules specific to our organization
( ) Don't Know
( ) Other

8. What barriers does your organization face in making energy efficiency improvements? (Select all that apply)

( ) Insufficient funding for improvements
( ) Lack of information on energy efficient equipment and practices
( ) Approval processes that slow or make purchasing difficult
( ) Schedules that dictate when equipment is to be replaced or maintained regardless of efficiency levels
( ) Incentive program time requirements
( ) Current equipment that is too new to be replaced with more efficient equipment
( ) Don't Know
( ) Other

9. Is your organization able to utilize incentive or grant payments you receive for energy efficiency improvements or are the payments placed into a general fund?

( ) We are able to use the incentive payments for additional facility improvements, including additional energy efficiency improvements
( ) Incentive payments return to the facility general operating fund
( ) Incentive payments go into the state general revenue fund
( ) Don't Know
( ) Other:

10. Which financial methods does your organization typically use to evaluate energy efficiency investments? (Select all that apply)

( ) Initial Cost
( ) Simple Payback
( ) Internal rate of return
( ) Life cycle cost
( ) None of these

10A. What payback length of time do you normally require in order to proceed with an energy efficiency project? Please provide either a specific value or an estimated range.

10B. What rate of return do you normally require in order to proceed with an energy efficiency project? Please provide either a specific percentage or an estimated range.

10C. What discount rate do you normally apply when determining life cycle costs? Please provide either a specific value or an estimated range.

11. How did you learn about SEDAC Building Energy Assessments? (Select all that apply.)

( ) A DCEO representative mentioned it
( ) The DCEO Website
( ) The SEDAC Website
( ) From a utility representative
( ) Brochures or advertisements
( ) Trade association or business group you belong to
( ) Trade journal or magazine
( ) Friend or colleague
( ) From a representative of Smart Energy Design Assistance Center (SEDAC)
( ) From a representative of the Energy Resource Center (ERC)
( ) An architect, engineer or energy consultant
( ) Equipment vendor or building contractor
( ) Attended a conference workshop or seminar
( ) Past experience with the program
( ) An energy service company (ESCO)
( ) Other (please describe)

12. Which of the following lighting ECRMs have you partially or fully implemented since receiving the Building Energy Assessment report from SEDAC?

Only include measures that are currently installed at the building assessed by SEDAC. Do not include measures that you are planning to install.

ECRM Type	Have Fully Implemented	Have Partially Implemented	Have Not Implemented but May in the Future	Will Not Implement	Don't Know
ECRM	( )	( )	( )	( )	( )

12A. What part of the partially implemented lighting recommendations have you implemented?

12B. Did you have finalized plans to install the lighting ECRMs before receiving the SEDAC Building Energy Assessment?

( ) Yes
( ) No

12C. Would you have gone ahead with these plans had you not received the SEDAC Building Energy Assessment?

( ) Yes
( ) No

12D. How important was the information provided to you in the SEDAC Building Energy Assessment to your decision to implement the lighting ECRMs?

( ) Very Important
( ) Somewhat important
( ) Slightly important
( ) Not at all important

12E. Did you receive a financial incentive or rebate from a utility or Illinois DCEO to implement the lighting ECRMs?

( ) Yes, for all of the implemented ECRMs
( ) Yes, for some of the implemented ECRMs
( ) No
( ) Don't know

12F. Which lighting ECRMs did you implement that you did not receive an incentive for?

12G. Before you received the SEDAC Building Energy Assessment, had you implemented energy efficient equipment similar to the lighting ECRMs at your facility?

( ) Yes
( ) No
( ) Don't know

12H. Did your implementation of the lighting recommendations involve replacing existing that was still operational?

( ) Yes
( ) No
( ) Don't know

12I. How old was the old lighting?

13. Which of the following building envelope ECRMs have you partially or fully implemented since receiving the Building Energy Assessment report from SEDAC?

Only include measures that are currently installed at the building assessed by SEDAC. Do not include measures that you are planning to install.

ECRM Type	Have Fully Implemented	Have Partially Implemented	Have Not Implemented but May in the Future	Will Not Implement	Don't Know
ECRM	( )	( )	( )	( )	( )

13A. What part of the partially implemented building envelope recommendations have you implemented?

13B. Did you have finalized plans to install the building envelope ECRMs before receiving the SEDAC Building Energy Assessment?

( ) Yes
( ) No

13C. Would you have gone ahead with these plans had you not received the SEDAC Building Energy Assessment?

( ) Yes
( ) No

13D. How important was the information provided to you in the SEDAC Building Energy Assessment to your decision to implement the building envelope ECRMs?

( ) Very Important
( ) Somewhat important
( ) Slightly important
( ) Not at all important

13E. Did you receive a financial incentive or rebate from a utility or Illinois DCEO to implement the building envelope ECRMs?

( ) Yes, for all of the implemented ECRMs
( ) Yes, for some of the implemented ECRMs
( ) No
( ) Don't know

13F. Which building envelope ECRMs did you implement that you did not receive an incentive for?

13G. Before you received the SEDAC Building Energy Assessment, had you implemented energy efficient equipment similar to the building envelope ECRMs at your facility?

( ) Yes
( ) No
( ) Don't know

14. Which of the following HVAC ECRMs have you partially or fully implemented since receiving the Building Energy Assessment report from SEDAC?

Only include measures that are currently installed at the building assessed by SEDAC. Do not include measures that you are planning to install.

ECRM Type	Have Fully Implemented	Have Partially Implemented	Have Not Implemented but May in the Future	Will Not Implement	Don't Know
ECRM	( )	( )	( )	( )	( )

14A. What part of the partially implemented HVAC recommendations have you implemented?

14B. Did you have finalized plans to install the HVAC ECRMs before receiving the SEDAC Building Energy Assessment?

( ) Yes
( ) No

14C. Would you have gone ahead with these plans had you not received the SEDAC Building Energy Assessment?

( ) Yes
( ) No

14D. How important was the information provided to you in the SEDAC Building Energy Assessment to your decision to implement the HVAC ECRMs?

( ) Very Important
( ) Somewhat important
( ) Slightly important
( ) Not at all important

14E. Did you receive a financial incentive or rebate from a utility or Illinois DCEO to implement the HVAC ECRMs?

( ) Yes, for all of the equipment
( ) Yes, for some of the equipment
( ) No
( ) Don't know

14F. Which HVAC ECRMs did you implement that you did not receive an incentive for?

14G. Before you received the SEDAC Building Energy Assessment, had you implemented energy efficient equipment similar to the HVAC ECRM's at your facility?

( ) Yes
( ) No
( ) Don't know

14H. Did your implementation of the HVAC recommendations involve replacing existing equipment that was still operational?

( ) Yes
( ) No
( ) Don't know

14I. How old was the old HVAC equipment?

15. Which of the following commissioning/recommissioning/retro-commissioning ECRMs have you partially or fully implemented since receiving the Building Energy Assessment report from SEDAC?

Only include measures that are currently installed at the building assessed by SEDAC. Do not include measures that you are planning to install.

ECRM Type	Have Fully Implemented	Have Partially Implemented	Have Not Implemented but May in the Future	Will Not Implement	Don't Know
ECRM	( )	( )	( )	( )	( )

15A. What part of the partially implemented commissioning/recommissioning/retro-commissioning recommendations have you implemented?

15B. Did you have finalized plans to install the commissioning/recommissioning/retro-commissioning ECRMs before receiving the SEDAC Building Energy Assessment?

( ) Yes
( ) No

15C. Would you have gone ahead with these plans had you not received the SEDAC Building Energy Assessment?

( ) Yes
( ) No

15D. How important was the information provided to you in the SEDAC Building Energy Assessment to your decision to implement the commissioning/recommissioning/retro commissioning ECRMs?

( ) Very Important
( ) Somewhat important
( ) Slightly important
( ) Not at all important

15E. Did you receive a financial incentive or rebate from a utility or Illinois DCEO to implement the commissioning/recommissioning/retro-commissioning ECRMs?

( ) Yes, for all of the implemented ECRMs
( ) Yes, for some of the implemented ECRMs
( ) No
( ) Don't know

15F. Which commissioning/recommissioning/retro-commissioning ECRMs did you implement that you did not receive an incentive for?

15G. Before you received the SEDAC Building Energy Assessment, had you implemented energy efficient equipment similar to the commisioning/recommissioning/retro-commissioning ECRMs at your facility?

( ) Yes
( ) No
( ) Don't know

16. Which of the following ECRMs for controls have you partially or fully implemented since receiving the Building Energy Assessment report from SEDAC?

Only include measures that are currently installed at the building assessed by SEDAC. Do not include measures that you are planning to install.

ECRM Type	Have Fully Implemented	Have Partially Implemented	Have Not Implemented but May in the Future	Will Not Implement	Don't Know
ECRM	( )	( )	( )	( )	( )

16A. What part of the partially implemented recommendations for controls have you implemented?

16B. Did you have finalized plans to install the recommended controls before receiving the SEDAC Building Energy Assessment?

( ) Yes
( ) No

16C. Would you have gone ahead with these plans had you not received the SEDAC Building Energy Assessment?

( ) Yes
( ) No

16D. How important was the information provided to you in the SEDAC Building Energy Assessment to your decision to implement the recommended controls?

( ) Very Important
( ) Somewhat important
( ) Slightly important
( ) Not at all important

16E. Did you receive a financial incentive or rebate from a utility or Illinois DCEO to implement the recommended controls?

( ) Yes, for all of the implemented ECRMs
( ) Yes, for some of the implemented ECRMs
( ) No
( ) Don't know

16F. Which recommended controls did you implement that you did not receive an incentive for?

16G. Before you received the SEDAC Building Energy Assessment, had you implemented equipment similar to the recommended controls at your facility?

( ) Yes
( ) No
( ) Don't know

17. Which of the following motors and drives ECRMs have you partially or fully implemented since receiving the Building Energy Assessment report from SEDAC?

Only include measures that are currently installed at the building assessed by SEDAC. Do not include measures that you are planning to install.

ECRM Type	Have Fully Implemented	Have Partially Implemented	Have Not Implemented but May in the Future	Will Not Implement	Don't Know
ECRM	( )	( )	( )	( )	( )

17A. What part of the partially implemented motors and drives recommendations have you implemented?

17B. Did you have finalized plans to install the motors and drives ECRMs before receiving the SEDAC Building Energy Assessment?

( ) Yes
( ) No

17C. Would you have gone ahead with these plans had you not received the SEDAC Building Energy Assessment?

( ) Yes
( ) No

17D. How important was the information provided to you in the SEDAC Building Energy Assessment to your decision to implement the motors and drives ECRMs?

( ) Very Important
( ) Somewhat important
( ) Slightly important
( ) Not at all important

17E. Did you receive a financial incentive or rebate from a utility or Illinois DCEO to implement the motors and drives ECRMs?

( ) Yes, for all of the implemented ECRMs
( ) Yes, for some of the implemented ECRMs
( ) No
( ) Don't know

17F. Which motors and drives ECRMs did you implement that you did not receive an incentive for?

17G. Before you received the SEDAC Building Energy Assessment, had you implemented energy efficient equipment similar to the motors and drives ECRMs at your facility?

( ) Yes
( ) No
( ) Don't know

17H. Did your implementation of the motors or drives recommendations involve replacing existing motors that were still operational?

( ) Yes
( ) No
( ) Don't know

17I. How old was the old motor(s)?

18. Which of the following renewable energy ECRMs have you partially or fully implemented since receiving the Building Energy Assessment report from SEDAC?

Only include measures that are currently installed at the building assessed by SEDAC. Do not include measures that you are planning to install.

ECRM Type	Have Fully Implemented	Have Partially Implemented	Have Not Implemented but May in the Future	Will Not Implement	Don't Know
ECRM	( )	( )	( )	( )	( )

18A. What part of the partially implemented renewable energy recommendations have you implemented?

18B. Did you have finalized plans to install the renewable energy ECRMs before receiving the SEDAC Building Energy Assessment?

( ) Yes
( ) No

18C. Would you have gone ahead with these plans had you not received the SEDAC Building Energy Assessment?

( ) Yes
( ) No

18D. How important was the information provided to you in the SEDAC Building Energy Assessment to your decision to implement the renewable energy ECRMs?

( ) Very Important
( ) Somewhat important
( ) Slightly important
( ) Not at all important

18E. Did you receive a financial incentive or rebate from a utility or Illinois DCEO to implement the renewable energy ECRMs?

( ) Yes, for all of the implemented ECRMs
( ) Yes, for some of the implemented ECRMs
( ) No
( ) Don't know

18F. Which renewable energy ECRMs did you implement that you did not receive an incentive for?

18G. Before you received the SEDAC Building Energy Assessment, had you implemented equipment similar to the renewable energy ECRMs at your facility?

( ) Yes
( ) No
( ) Don't know

19. Which of the following pool equipment ECRMs have you partially or fully implemented since receiving the Building Energy Assessment report from SEDAC?

Only include measures that are currently installed at the building assessed by SEDAC. Do not include measures that you are planning to install.

ECRM Type	Have Fully Implemented	Have Partially Implemented	Have Not Implemented but May in the Future	Will Not Implement	Don't Know
ECRM	( )	( )	( )	( )	( )

19A. What part of the partially implemented pool equipment recommendations have you implemented?

19B. Did you have finalized plans to install the pool equipment ECRMs before receiving the SEDAC Building Energy Assessment?

( ) Yes
( ) No

19C. Would you have gone ahead with these plans had you not received the SEDAC Building Energy Assessment?

( ) Yes
( ) No

19D. How important was the information provided to you in the SEDAC Building Energy Assessment to your decision to implement the pool equipment ECRMs?

( ) Very Important
( ) Somewhat important
( ) Slightly important
( ) Not at all important

19E. Did you receive a financial incentive or rebate from a utility or Illinois DCEO to implement the pool equipment ECRMs?

( ) Yes, for all of the implemented ECRMs
( ) Yes, for some of the implemented ECRMs
( ) No
( ) Don't know

19F. Which pool equipment ECRMs did you implement that you did not receive an incentive for?

19G. Before you received the SEDAC Building Energy Assessment, had you implemented energy efficient equipment similar to the pool equipment ECRMs at your facility?

( ) Yes
( ) No
( ) Don't know

19H. Did your implementation of the pool equipment recommendations involve replacing existing equipment that was still operational?

( ) Yes
( ) No
( ) Don't know

19I. How old was the old equipment?

20. Which of the following refrigeration ECRMs have you partially or fully implemented since receiving the Building Energy Assessment report from SEDAC?

Only include measures that are currently installed at the building assessed by SEDAC. Do not include measures that you are planning to install.

ECRM Type	Have Fully Implemented	Have Partially Implemented	Have Not Implemented but May in the Future	Will Not Implement	Don't Know
ECRM	( )	( )	( )	( )	( )

20A.What part of the partially implemented refrigeration recommendations have you implemented?

20B. Did you have finalized plans to install the refrigeration ECRMs before receiving the SEDAC Building Energy Assessment?

( ) Yes
( ) No

20C. Would you have gone ahead with these plans had you not received the SEDAC Building Energy Assessment?

( ) Yes
( ) No

20D. How important was the information provided to you in the SEDAC Building Energy Assessment to your decision to implement the refrigeration ECRMs?

( ) Very Important
( ) Somewhat important
( ) Slightly important
( ) Not at all important

20E. Did you receive a financial incentive or rebate from a utility or Illinois DCEO to implement the refrigeration ECRMs?

( ) Yes, for all of the implemented ECRMs
( ) Yes, for some of the implemented ECRMs
( ) No
( ) Don't know

20F. Which refrigeration ECRMs did you implement that you did not receive an incentive for?

20G. Before you received the SEDAC Building Energy Assessment, had you implemented energy efficient equipment similar to the refrigeration ECRMs at your facility?

( ) Yes
( ) No
( ) Don't know

20H. Did your implementation of the refrigeration recommendations involve replacing existing equipment that was still operational?

( ) Yes
( ) No
( ) Don't know

20I. How old was the old equipment?

21. Which of the following computer power management ECRMs have you partially or fully implemented since receiving the Building Energy Assessment report from SEDAC?

Only include measures that are currently installed at the building assessed by SEDAC. Do not include measures that you are planning to install.

ECRM Type	Have Fully Implemented	Have Partially Implemented	Have Not Implemented but May in the Future	Will Not Implement	Don’t Know
ECRM	( )	( )	( )	( )	( )

21A. What part of the partially implemented computer power management recommendations have you implemented?

21B. Did you have finalized plans to install the computer power management ECRMs before receiving the SEDAC Building Energy Assessment?

( ) Yes
( ) No

21C. Would you have gone ahead with these plans had you not received the SEDAC Building Energy Assessment?

( ) Yes
( ) No

21D. How important was the information provided to you in the SEDAC Building Energy Assessment to your decision to implement the computer power management ECRMs?

( ) Very Important
( ) Somewhat important
( ) Slightly important
( ) Not at all important

21E. Did you receive a financial incentive or rebate from a utility or Illinois DCEO to implement the computer power management ECRMs?

( ) Yes, for all of the implemented ECRMs
( ) Yes, for some of the implemented ECRMs
( ) No
( ) Don't know

21F. Which computer power management ECRMs did you implement that you did not receive an incentive for?

21G. Before you received the SEDAC Building Energy Assessment, had you implemented energy efficient equipment similar to the computer power management ECRMs at your facility?

( ) Yes
( ) No
( ) Don't know

22. Which of the following boiler and water heater ECRMs have you partially or fully implemented since receiving the Building Energy Assessment report from SEDAC?

Only include measures that are currently installed at the building assessed by SEDAC. Do not include measures that you are planning to install.

ECRM Type	Have Fully Implemented	Have Partially Implemented	Have Not Implemented but May in the Future	Will Not Implement	Don't Know
ECRM	( )	( )	( )	( )	( )

22A. What part of the partially implemented boiler and water heater recommendations have you implemented?

22B. Did you have finalized plans to install the boiler and/or water heating ECRMs before receiving the SEDAC Building Energy Assessment?

( ) Yes
( ) No

22C. Would you have gone ahead with these plans had you not received the SEDAC Building Energy Assessment?

( ) Yes
( ) No

22D. How important was the information provided to you in the SEDAC Building Energy Assessment to your decision to implement the boiler and/or water heating ECRMs?

( ) Very Important
( ) Somewhat important
( ) Slightly important
( ) Not at all important

22E. Did you receive a financial incentive or rebate from a utility or Illinois DCEO to implement the boiler/water heating ECRMs?

( ) Yes, for all of the implemented ECRMs
( ) Yes, for some of the implemented ECRMs
( ) No
( ) Don't know

22F. Which boiler/water heating ECRMs did you implement that you did not receive an incentive for?

22G. Before you received the SEDAC Building Energy Assessment, had you implemented energy efficient equipment similar to the boilers / water heating ECRMs at your facility?

( ) Yes
( ) No
( ) Don't know

22H. Did your implementation of the boilers / water heating recommendations involve replacing existing equipment that was still operational?

( ) Yes
( ) No
( ) Don't know

22I. How old was the old boiler / water heating equipment?

23. Which of the following compressed air ECRMs have you partially or fully implemented since receiving the Building Energy Assessment report from SEDAC?

Only include measures that are currently installed at the building assessed by SEDAC. Do not include measures that you are planning to install.

ECRM Type	Have Fully Implemented	Have Partially Implemented	Have Not Implemented but May in the Future	Will Not Implement	Don't Know
ECRM	( )	( )	( )	( )	( )

23A. What part of the partially implemented compressed air recommendations have you implemented?

23B. Did you have finalized plans to install the compressed air ECRMs before receiving the SEDAC Building Energy Assessment?

( ) Yes
( ) No

23C. Would you have gone ahead with these plans had you not received the SEDAC Building Energy Assessment?

( ) Yes
( ) No

23D. How important was the information provided to you in the SEDAC Building Energy Assessment to your decision to implement the compressed air ECRMs?

( ) Very Important
( ) Somewhat important
( ) Slightly important
( ) Not at all important

23E. Did you receive a financial incentive or rebate from a utility or Illinois DCEO to implement the compressed air ECRMs?

( ) Yes, for all of the implemented ECRMs
( ) Yes, for some of the implemented ECRMs
( ) No
( ) Don't know

23F. Which compressed air ECRMs did you implement that you did not receive an incentive for?

23G. Before you received the SEDAC Building Energy Assessment, had you implemented energy efficient equipment similar to the compressed air ECRMs at your facility?

( ) Yes
( ) No
( ) Don't know

23H. Did your implementation of the compressed air recommendations involve replacing existing equipment that was still operational?

( ) Yes
( ) No
( ) Don't know

23I. How old was the old air compressor equipment?

24. Which of the following energy efficient appliance ECRMs have you partially or fully implemented since receiving the Building Energy Assessment report from SEDAC?

Only include measures that are currently installed at the building assessed by SEDAC. Do not include measures that you are planning to install.

ECRM Type	Have Fully Implemented	Have Partially Implemented	Have Not Implemented but May in the Future	Will Not Implement	Don't Know
ECRM	( )	( )	( )	( )	( )

24A. What part of the partially implemented energy efficient appliance recommendations have you implemented?

24B. Did you have finalized plans to install the energy efficient appliances ECRMs before receiving the SEDAC Building Energy Assessment?

( ) Yes
( ) No

24C. Would you have gone ahead with these plans had you not received the SEDAC Building Energy Assessment?

( ) Yes
( ) No

24D. How important was the information provided to you in the SEDAC Building Energy Assessment to your decision to implement the energy efficient appliance ECRMs?

( ) Very Important
( ) Somewhat important
( ) Slightly important
( ) Not at all important

24E. Did you receive a financial incentive or rebate from a utility or Illinois DCEO to implement the energy efficient appliance ECRMs?

( ) Yes, for all of the implemented ECRMs
( ) Yes, for some of the implemented ECRMs
( ) No
( ) Don't know

24F. Which energy efficient appliance ECRMs did you implement that you did not receive an incentive for?

24G. Before you received the SEDAC Building Energy Assessment, had you implemented energy efficient equipment similar to the energy efficient appliances ECRMs at your facility?

( ) Yes
( ) No
( ) Don't know

24H. Did your implementation of the energy efficient appliances involve replacing existing equipment that was still operational?

( ) Yes
( ) No
( ) Don't know

24I. How old were the old appliances?

25. Which of the following power generation or system improrvement ECRMs have you partially or fully implemented since receiving the Building Energy Assessment report from SEDAC?

Only include measures that are currently installed at the building assessed by SEDAC. Do not include measures that you are planning to install.

ECRM Type	Have Fully Implemented	Have Partially Implemented	Have Not Implemented but May in the Future	Will Not Implement	Don't Know
ECRM	( )	( )	( )	( )	( )

25A. What part of the partially implemented power recommendations have you implemented?

25B. Did you have finalized plans to install the power ECRMs before receiving the SEDAC Building Energy Assessment?

( ) Yes
( ) No

25C. Would you have gone ahead with these plans had you not received the SEDAC Building Energy Assessment?

( ) Yes
( ) No

25D. How important was the information provided to you in the SEDAC Building Energy Assessment to your decision to implement the power ECRMs?

( ) Very Important
( ) Somewhat important
( ) Slightly important
( ) Not at all important

25E. Did you receive a financial incentive or rebate from a utility or Illinois DCEO to implement the power generation or system improrvement ECRMs?

( ) Yes, for all of the implemented ECRMs
( ) Yes, for some of the implemented ECRMs
( ) No
( ) Don't know

25F. Which power generation or system improvement ECRMs did you implement that you did not receive an incentive for?

26. Have you partially or fully implemented the smart plug power strip ECRM since receiving the Building Energy Assessment report from SEDAC?

Only include measures that are currently installed at the building assessed by SEDAC. Do not include measures that you are planning to install.

ECRM Type	Have Fully Implemented	Have Partially Implemented	Have Not Implemented but May in the Future	Will Not Implement	Don't Know
ECRM	( )	( )	( )	( )	( )

26A. What part of the partially implemented smart plug power strip recommendations have you implemented?

26B. Did you have finalized plans to install the smart plug power strip ECRMs before receiving the SEDAC Building Energy Assessment?

( ) Yes
( ) No

26C. Would you have gone ahead with these plans had you not received the SEDAC Building Energy Assessment?

( ) Yes
( ) No

26D. How important was the information provided to you in the SEDAC Building Energy Assessment to your decision to implement the smart plug power strip ECRMs?

( ) Very Important
( ) Somewhat important
( ) Slightly important
( ) Not at all important

26E. Did you receive a financial incentive or rebate from a utility or Illinois DCEO to implement the smart plug power strip ECRM?

( ) Yes, for all of the implemented ECRMs
( ) Yes, for some of the implemented ECRMs
( ) No
( ) Don't know

26F. Which of the smart plug power strip ECRMs did you implement that you did not receive an incentive for?

26G. Before you received the SEDAC Building Energy Assessment, had you implemented energy efficient equipment similar to the power ECRMs at your facility?

( ) Yes
( ) No
( ) Don't know

26H. Before you received the SEDAC Building Energy Assessment, had you implemented energy efficient equipment similar to the smart plug power strip ECRMs at your facility?

( ) Yes
( ) No
( ) Don't know

27. Which of the following other ECRMs have you partially or fully implemented since receiving the Building Energy Assessment report from SEDAC?

Only include measures that are currently installed at the building assessed by SEDAC. Do not include measures that you are planning to install.

ECRM Type	Have Fully Implemented	Have Partially Implemented	Have Not Implemented but May in the Future	Will Not Implement	Don't Know
ECRM	( )	( )	( )	( )	( )

27A. What part of the partially implemented other recommendations have you implemented?

27B. Did you have finalized plans to install the other ECRMs before receiving the SEDAC Building Energy Assessment?

( ) Yes
( ) No

27C. Would you have gone ahead with these plans had you not received the SEDAC Building Energy Assessment?

( ) Yes
( ) No

27D. How important was the information provided to you in the SEDAC Building Energy Assessment to your decision to implement the other ECRMs?

( ) Very Important
( ) Somewhat important
( ) Slightly important
( ) Not at all important

27E. Did you receive a financial incentive or rebate from a utility or Illinois DCEO to implement the other ECRMs?

( ) Yes, for all of the implemented ECRMs
( ) Yes, for some of the implemented ECRMs
( ) No
( ) Don't know

27F. Which of the other ECRMs did you implement that you did not receive an incentive for?

27G. Before you received the SEDAC Building Energy Assessment, had you implemented energy efficient equipment similar to the other ECRMs at your facility?

( ) Yes
( ) No
( ) Don't know

28. Did you implement any of the recommended ECRMs in buildings other than the one specifically addressed by the energy assessment?

( ) Yes
( ) No
( ) Don't Know

28A. Did you receive a financial incentive or rebate from a utility or Illinois DCEO to implement these additional energy efficiency improvements?

( ) Yes, for all of the implemented improvements
( ) Yes, for some of the implemented improvements
( ) No
( ) Don't know

28B. What additional improvements did you implement in other buildings that you did not receive an incentive for?

28C. What is the address or addresses of the building or buildings where the additional improvements were implemented?

28D. How important was the information that you received in the SEDAC Building Energy Assessment to your decision to implement the additional improvements?

( ) Very important
( ) Somewhat important
( ) Neither important or unimportant
( ) Somewhat unimportant
( ) Very unimportant

28E. How important was your experience with the ECRMs that you implemented at the building assessed by SEDAC to your decision to implement the additional improvements?

( ) Very important
( ) Somewhat important
( ) Neither important or unimportant
( ) Somewhat unimportant
( ) Very unimportant
( ) Did not implement any ECRMs at the building assessed by SEDAC

29. Have you implemented any additional energy efficiency projects that were not recommended in the SEDAC Building Energy Assessment because of your experience with the SEDAC Building Energy Assessment Program?

( ) Yes
( ) No
( ) Don't know

29A. Did you apply for or receive a utility or Illinois DCEO incentive for the project(s)?

( ) Yes, for all of the projects
( ) Yes, for some of the projects
( ) No
( ) Don't know

29B. What additional projects did you implement that you did not receive an incentive for?

29C. Was the project implemented at the same facility (or facilities) as the energy efficiency measures that you received the SEDAC Building Energy Assessment for?

( ) Yes
( ) No
( ) Don't Know

29D. Please provide the addresses for the facilities where these projects were completed.

29E. How important was the information that you received in the SEDAC Building Energy Assessment to your decision to implement this additional project(s)?

( ) Very important
( ) Somewhat important
( ) Neither important or unimportant
( ) Somewhat unimportant
( ) Very unimportant

29F. How important was your experience with the recommended ECRMs that you implemented to your decision to implement this additional equipment project(s)?

( ) Very important
( ) Somewhat important
( ) Neither important or unimportant
( ) Somewhat unimportant
( ) Very unimportant

29G. For the ECRMs that you have not implemented, but may implement in the future, why have you not implemented them yet? (Select all that apply)

( ) Delays in getting approval for the project(s)
( ) Insufficient funds to implement the project(s)
( ) Other priorities for capital improvement projects
( ) Savings not great enough to make the project a priority
( ) Other
( ) Don't know

29H. For the recommended ECRMs that you do not plan on implementing, why do you not plan on implementing them? (Select all that apply)

( ) Insufficient funds to implement project(s)
( ) Other priorities for capital improvement projects
( ) Savings not great enough to justify the cost
( ) Other
( ) Don't know

30. How would you rate your satisfaction with the following?

- Professionalism of the SEDAC staff or representative who performed the assessment
- The credibility of the savings associated with the energy cost reduction measure (ECRM) recommendations
- The usefulness of the assessment report for identifying ways to save energy
- The performance of the energy cost reduction measures you implemented
- The application process for the building assessment
- Information provided on financial incentives to implement recommendations
- Overall experience with the SEDAC Building Energy Assessment Program

30H. Please explain in what ways you were not satisfied with the program.

31. Do you have any other comments that you would like to relay to DCEO or SEDAC about energy efficiency or about their programs?

Appendix B: Decision Maker Survey Responses

As part of the evaluation effort, an email and telephone survey was administered to Smart Energy Design Assistance Center Program participants who received a energy audit through DCEO. This survey provided the information used in Chapter 3 to estimate free ridership and potential savings for projects in the SEDAC Program. However, the survey also provided more general information pertaining to the making of decisions to improve energy efficiency by Program participants.

Each participant was interviewed using the survey instrument provided in Appendix A. During the interview, a participant was asked questions about (1) his or her general decision making regarding purchasing and installing energy efficient equipment, (2) his or her knowledge of and satisfaction with the SEDAC Program, and (3) the influence that the SEDAC Program had on his or her decision to install energy efficiency measures (e.g., lighting measures, HVAC measures, maintenance and operation improvements).

The following tabulations summarize participant survey responses. Three columns of data are presented. The first column presents the number of survey respondents (n) associated with each response. The second column presents the percentage of survey respondents associated with each response.

1. You received the energy assessment report with recommendations for energy cost reduction measures (ECRMs). This report recommended energy cost reduction measures . Do you recall receiving this report?	*Response*	*(n=162)*	*Percent of Respondents*
	Yes	162	100%
	No	0	0%
	Don't know	0	0%

1a. Is there another person at your facility who we could speak with about the Energy Assessment report?	*Response*	*(n=0)*	*Percent of Respondents*
	Yes	0	0%
	No	0	0%
	Don't know	0	0%

2. What was your role in the decision making process to implement the recommended energy cost reduction measures (ECRMs)?	*Response*	*(n=165)*	*Percent of Respondents*
	Main decision maker	45	27%
	Assisted with the decision	112	68%
	Was not part of the decision process	8	5%

3. What are the sources your organization relies on for information about energy efficient practices, equipment, materials and design features? (Select all that apply)	*Response*	*(n=165)*	*Percent of Respondents**
	DCEO Representatives	59	36%
	The DCEO Website	57	35%
	The SEDAC Website	85	52%
	Utility Representatives	66	40%
	Brochures or advertisements	53	32%
	Trade associates or business groups you belong to	68	41%
	Trade journals or magazines	62	38%
	Friends and colleagues	80	48%
	Representatives of the Smart Energy Design Assistance Center (SEDAC)	99	60%
	Representatives of the Energy Resource Center (ERC)	25	15%
	Architects, engineers or energy consultants	106	64%
	Equipment vendors or building contractors	77	47%
	Other (please describe)	13	8%

*Since respondents were able to select more than one response, the sum of the percentages in the table above can exceed 100%.

	Response	*(n=156)*	*Percent of Respondents**
4. Which of the following policies or procedures does your organization have in place regarding energy efficiency improvements at this facility? (Select all that apply)	An energy management plan	30	19%
	A staff member responsible for energy and energy efficiency	85	54%
	Policies that incorporate energy efficiency in operations and procurement	66	42%
	Active training of staff	45	29%
	Other (please specify)	11	7%
	None	27	17%

*Since respondents were able to select more than one response, the sum of the percentages in the table above can exceed 100%.

	Response	*(n=30)*	*Percent of Respondents*
4a. Does your energy management plan have goals for energy savings?	Yes	25	83%
	No	4	13%
	Don't know	1	3%

	Response	*(n=161)*	*Percent of Respondents*
5. How does your organization decide to make energy efficiency improvements for this facility? Is the decision:	Made by one or two key people	55	35%
	Based on staff recommendations to a decision maker	44	28%
	Made by a group or committee	57	37%
	Made in some other way	5	3%

	Response	*(n=165)*	*Percent of Respondents**
6. How does your organization fund energy efficiency improvements? (Select all that apply)	Through a capital request	80	51%
	Funds are taken from operation and maintenance budget	120	77%
	Dedicated funding for energy efficiency projects	28	18%
	Other	17	11%

*Since respondents were able to select more than one response, the sum of the percentages in the table above can exceed 100%.

	Response	*(n=162)*	*Percent of Respondents**
7. What is the approval process for equipment purchases in your organization? (Select all that apply)	An open bid is required	73	47%
	Required to select lowest bidder	45	29%
	Use a specific vendor	16	10%
	Depends on the amount of purchase	116	74%
	Follow state or federal procurement guidelines	64	41%
	Follow procurement rules specific to our organization	82	53%
	Don't Know	1	1%
	Other	6	4%

*Since respondents were able to select more than one response, the sum of the percentages in the table above can exceed 100%.

	Response	*(n=119)*	*Percent of Respondents**
8. What barriers does your organization face in making energy efficiency improvements? (Select all that apply)	Insufficient funding for improvements	119	76%
	Lack of information on energy efficient equipment and practices	33	21%
	Approval processes that slow or make purchasing difficult	28	18%
	Schedules that dictate when equipment is to be replaced or maintained regardless of efficiency levels	17	11%
	Incentive program time requirements	38	24%
	Current equipment that is too new to be replaced with more efficient equipment	39	25%
	Don't Know	6	4%
	Other	18	12%

*Since respondents were able to select more than one response, the sum of the percentages in the table above can exceed 100%.

	Response	*(n=100)*	*Percent of Respondents*
9. Is your organization able to utilize incentive or grant payments you receive for energy efficiency improvements or are the payments placed into a general fund?	We are able to use the incentive payments for additional facility improvements	55	55%
	Incentive payments return to the facility general operating fund	32	32%
	Incentive payments go into the state general revenue fund	1	1%
	Don't know	9	9%
	Other	3	3%

	Response	*(n=100)*	*Percent of Respondents**
10. Which financial methods does your organization typically use to evaluate energy efficiency investments? (Select all that apply)	Initial Cost	100	64%
	Simple Payback	116	74%
	Internal rate of return	71	46%
	Life cycle cost	65	42%
	None of these	12	8%

*Since respondents were able to select more than one response, the sum of the percentages in the table above can exceed 100%.

10a. What payback length of time do you normally require in order to proceed with an energy efficiency project? Please provide either a specific value or an estimated range.	*Response*	*(n=112)*	*Payback time in years*
	Average payback time		4.7

10b. What rate of return do you normally require in order to proceed with an energy efficiency project? Please provide either a specific percentage or an estimated range.	*Response*	*(n=22)*	*Rate of return %*
	Rate of return		14%

	Response	*(n=112)*	*Percent of Respondents**
11. How did you learn about SEDAC Building Energy Assessments? (Select all that apply.)	A DCEO representative mentioned it	30	27%
	The DCEO Website	26	23%
	The SEDAC Website	50	45%
	From a utility representative	16	14%
	Brochures or advertisements	19	17%
	Trade association or business group you belong to	23	21%
	Trade journal or magazine	4	4%
	Friend or colleague	45	40%
	From a representative of Smart Energy Design Assistance Center (SEDAC)	48	43%
	From a representative of the Energy Resource Center (ERC)	0	0%
	An architect, engineer or energy consultant	25	22%
	Equipment vendor or building contractor	8	7%
	Attended a conference workshop or seminar	33	29%
	Past experience with the program	17	15%
	An energy service company (ESCO)	10	9%
	Other (please describe)	19	17%

*Since respondents were able to select more than one response, the sum of the percentages in the table above can exceed 100%.

12. Which of the following lighting ECRMs have you partially or fully implemented since receiving the Building Energy Assessment report from SEDAC?	*Response*	*(n=334)*	*Percent of Respondents**
	Fully implemented	133	40%
	Partially implemented	71	21%
	Have not implemented but may in the future	83	25%
	Will not implement	24	7%
	Don't know	23	7%

12b. Did you have finalized plans to install the lighting ECRMs before receiving the SEDAC Building Energy Assessment?	*Response*	*(n=118)*	*Percent of Respondents*
	Yes	18	15%
	No	100	85%

12c. Would you have gone ahead with these plans had you not received the SEDAC Building Energy Assessment?	*Response*	*(n=18)*	*Percent of Respondents*
	Yes	13	72%
	No	5	28%

12d. How important was the information provided to you in the SEDAC Building Energy Assessment to your decision to implement the lighting ECRMs?	*Response*	*(n=117)*	*Percent of Respondents*
	Very Important	76	65%
	Somewhat important	31	26%
	Slightly important	5	4%
	Not at all important	5	4%

12e. Did you receive a financial incentive or rebate from a utility or Illinois DCEO to implement the lighting ECRMs?	*Response*	*(n=117)*	*Percent of Respondents*
	Yes, for all of the implemented ECRMs	0	0%
	Yes, for some of the implemented ECRMs	65	56%
	No	37	32%
	Don't know	15	13%

12g. Before you received the SEDAC Building Energy Assessment, had you implemented energy efficient equipment similar to the lighting ECRMs at your facility?	*Response*	*(n=118)*	*Percent of Respondents*
	Yes	55	47%
	No	56	47%
	Don't know	7	6%

12h. Did your implementation of the lighting recommendations involve replacing existing that was still operational?	*Response*	*(n=115)*	*Percent of Respondents*
	Yes	97	84%
	No	12	10%
	Don't know	6	5%

12i. How old was the old lighting?	*Response*	*(n=0)*	*Age (years)*
	Age in years		0%

13. Which of the following building envelope ECRMs have you partially or fully implemented since receiving the Building Energy Assessment report from SEDAC?	*Response*	*(n=108)*	*Percent of Respondents*
	Fully implemented	19	18%
	Partially implemented	13	12%
	Have not implemented but may in the future	43	40%
	Will not implement	21	19%
	Don't know	12	11%

13b. Did you have finalized plans to install the building envelope ECRMs before receiving the SEDAC Building Energy Assessment?	*Response*	*(n=26)*	*Percent of Respondents*
	Yes	5	19%
	No	21	81%

13c. Would you have gone ahead with these plans had you not received the SEDAC Building Energy Assessment?	*Response*	*(n=5)*	*Percent of Respondents*
	Yes	4	80%
	No	1	20%

13d. How important was the information provided to you in the SEDAC Building Energy Assessment to your decision to implement the lighting ECRMs?	*Response*	*(n=26)*	*Percent of Respondents*
	Very Important	18	69%
	Somewhat important	7	27%
	Slightly important	1	4%
	Not at all important	0	0%

13e. Did you receive a financial incentive or rebate from a utility or Illinois DCEO to implement the building envelope ECRMs?	*Response*	*(n=26)*	*Percent of Respondents*
	Yes, for all of the implemented ECRMs	0	0%
	Yes, for some of the implemented ECRMs	5	19%
	No	18	69%
	Don't know	3	12%

13f. Before you received the SEDAC Building Energy Assessment, had you implemented energy efficient equipment similar to the lighting ECRMs at your facility?	*Response*	*(n=26)*	*Percent of Respondents*
	Yes	6	23%
	No	20	77%
	Don't know	0	0%

14. Which of the following HVAC ECRMs have you partially or fully implemented since receiving the Building Energy Assessment report from SEDAC?	*Response*	*(n=310)*	*Percent of Respondents*
	Fully implemented	57	18%
	Partially implemented	31	10%
	Have not implemented but may in the future	138	45%
	Will not implement	39	13%
	Don't know	45	15%

14b. Did you have finalized plans to install the HVAC ECRMs before receiving the SEDAC Building Energy Assessment?	*Response*	*(n=60)*	*Percent of Respondents*
	Yes	9	15%
	No	51	85%

14c. Would you have gone ahead with these plans had you not received the SEDAC Building Energy Assessment?	*Response*	*(n=9)*	*Percent of Respondents*
	Yes	9	100%
	No	0	0%

14d. How important was the information provided to you in the SEDAC Building Energy Assessment to your decision to implement the HVAC ECRMs?	*Response*	*(n=60)*	*Percent of Respondents*
	Very Important	33	55%
	Somewhat important	24	40%
	Slightly important	3	5%
	Not at all important	0	0%

14e. Did you receive a financial incentive or rebate from a utility or Illinois DCEO to implement the HVAC ECRMs?	*Response*	*(n=60)*	*Percent of Respondents*
	Yes, for all of the equipment	10	17%
	Yes, for some of the equipment	4	7%
	No	42	70%
	Don't know	4	7%

14g. Before you received the SEDAC Building Energy Assessment, had you implemented energy efficient equipment similar to the HVAC ECRM's at your facility?	*Response*	*(n=57)*	*Percent of Respondents*
	Yes	16	28%
	No	38	67%
	Don't know	3	5%

14h. Did your implementation of the HVAC recommendations involve replacing existing equipment that was still operational?	*Response*	*(n=60)*	*Percent of Respondents*
	Yes	39	65%
	No	19	32%
	Don't know	2	3%

14i. How old was the old HVAC equipment?	*Response*	*(n=35)*	*Age (years)*
	Age in years		21.9

15. Which of the following commissioning/re-commissioning/retro commissioning ECRMs have you partially or fully implemented since receiving the Building Energy Assessment report from SEDAC?	*Response*	*(n=4)*	*Percent of Respondents*
	Fully implemented	1	25%
	Partially implemented	0	0%
	Have not implemented but may in the future	2	50%
	Will not implement	0	0%
	Don't know	1	25%

15b. Did you have finalized plans to install the commissioning/re-commissioning/retro commissioning ECRMs before receiving the SEDAC Building Energy Assessment?	*Response*	*(n=1)*	*Percent of Respondents*
	Yes	0	0%
	No	1	100%

15c. Would you have gone ahead with these plans had you not received the SEDAC Building Energy Assessment?	*Response*	*(n=0)*	*Percent of Respondents*
	Yes	0	0%
	No	0	0%

15d. How important was the information provided to you in the SEDAC Building Energy Assessment to your decision to implement the commissioning/re-commissioning/retro commissioning ECRMs?	*Response*	*(n=1)*	*Percent of Respondents*
	Very Important	1	100%
	Somewhat important	0	0%
	Slightly important	0	0%
	Not at all important	0	0%

15e. Did you receive a financial incentive or rebate from a utility or Illinois DCEO to implement the commissioning/re-commissioning/retro commissioning ECRMs?	*Response*	*(n=0)*	*Percent of Respondents*
	Yes, for all of the equipment	0	0%
	Yes, for some of the equipment	0	0%
	No	0	0%
	Don't know	0	0%

15g. Before you received the SEDAC Building Energy Assessment, had you implemented energy efficient equipment similar to the commissioning/re-commissioning/retro commissioning ECRMs at your facility?	*Response*	*(n=0)*	*Percent of Respondents*
	Yes	0	0%
	No	0	0%
	Don't know	0	0%

16. Which of the following ECRMs for controls have you partially or fully implemented since receiving the Building Energy Assessment report from SEDAC?	*Response*	*(n=70)*	*Percent of Respondents*
	Fully implemented	15	21%
	Partially implemented	4	6%
	Have not implemented but may in the future	30	43%
	Will not implement	13	19%
	Don't know	8	11%

16b. Did you have finalized plans to install the recommended controls before receiving the SEDAC Building Energy Assessment?	*Response*	*(n=18)*	*Percent of Respondents*
	Yes	2	11%
	No	16	89%

16c. Would you have gone ahead with these plans had you not received the SEDAC Building Energy Assessment?	*Response*	*(n=1)*	*Percent of Respondents*
	Yes	0	0%
	No	1	100%

16d. How important was the information provided to you in the SEDAC Building Energy Assessment to your decision to implement the recommended controls?	*Response*	*(n=18)*	*Percent of Respondents*
	Very Important	16	89%
	Somewhat important	2	11%
	Slightly important	0	0%
	Not at all important	0	0%

16e. Did you receive a financial incentive or rebate from a utility or Illinois DCEO to implement the recommended controls?	*Response*	*(n=17)*	*Percent of Respondents*
	Yes, for all of the implemented ECRMs	5	29%
	Yes, for some of the implemented ECRMs	1	6%
	No	9	53%
	Don't know	2	12%

16g. Before you received the SEDAC Building Energy Assessment, had you implemented equipment similar to the recommended controls at your facility?	*Response*	*(n=18)*	*Percent of Respondents*
	Yes	6	33%
	No	11	61%
	Don't know	1	6%

17. Which of the following motors and drives ECRMs have you partially or fully implemented since receiving the Building Energy Assessment report from SEDAC?	*Response*	*(n=31)*	*Percent of Respondents*
	Fully implemented	12	39%
	Partially implemented	3	10%
	Have not implemented but may in the future	9	29%
	Will not implement	5	16%
	Don't know	2	6%

17b. Did you have finalized plans to install the motors and drives ECRMs before receiving the SEDAC Building Energy Assessment?	*Response*	*(n=10)*	*Percent of Respondents*
	Yes	2	20%
	No	8	80%

17c. Would you have gone ahead with these plans had you not received the SEDAC Building Energy Assessment?	*Response*	*(n=2)*	*Percent of Respondents*
	Yes	2	100%
	No	0	0%

17d. How important was the information provided to you in the SEDAC Building Energy Assessment to your decision to implement the motors and drives ECRMs?	*Response*	*(n=10)*	*Percent of Respondents*
	Very Important	5	50%
	Somewhat important	3	30%
	Slightly important	2	20%
	Not at all important	0	0%

17e. Did you receive a financial incentive or rebate from a utility or Illinois DCEO to implement the motors and drives ECRMs?	*Response*	*(n=10)*	*Percent of Respondents*
	Yes, for all of the implemented ECRMs	6	60%
	Yes, for some of the implemented ECRMs	0	0%
	No	3	30%
	Don't know	1	10%

17g. Before you received the SEDAC Building Energy Assessment, had you implemented energy efficient equipment similar to the motors and drives ECRMs at your facility?	*Response*	*(n=10)*	*Percent of Respondents*
	Yes	3	30%
	No	6	60%
	Don't know	1	10%

17h. Did your implementation of the motors and drives recommendations involve replacing existing equipment that was still operational?	*Response*	*(n=10)*	*Percent of Respondents*
	Yes	6	60%
	No	3	30%
	Don't know	1	10%

17i. How old was the old motor(s)?	*Response*	*(n=4)*	*Age (years)*
	Age in years		12.4

18. Which of the following renewable energy ECRMs have you partially or fully implemented since receiving the Building Energy Assessment report from SEDAC?	*Response*	*(n=19)*	*Percent of Respondents*
	Have Fully implemented	0	0%
	Have Partially implemented	1	5%
	Have not implemented but may in the future	10	53%
	Will not implement	8	42%
	Don't know	0	0%

18b. Did you have finalized plans to install the renewable energy ECRMs before receiving the SEDAC Building Energy Assessment?	*Response*	*(n=1)*	*Percent of Respondents*
	Yes	0	0%
	No	1	100%

18c. Would you have gone ahead with these plans had you not received the SEDAC Building Energy Assessment?	*Response*	*(n=0)*	*Percent of Respondents*
	Yes	0	0%
	No	0	0%

18d. How important was the information provided to you in the SEDAC Building Energy Assessment to your decision to implement the renewable energy ECRMs?	*Response*	*(n=1)*	*Percent of Respondents*
	Very Important	1	100%
	Somewhat important	0	0%
	Slightly important	0	0%
	Not at all important	0	0%

18e. Did you receive a financial incentive or rebate from a utility or Illinois DCEO to implement the renewable energy ECRMs?	*Response*	*(n=0)*	*Percent of Respondents*
	Yes, for all of the equipment	0	0%
	Yes, for some of the equipment	0	0%
	No	0	0%
	Don't know	0	0%

18g. Before you received the SEDAC Building Energy Assessment, had you implemented equipment similar to the renewable energy ECRMs at your facility?	*Response*	*(n=1)*	*Percent of Respondents*
	Yes	0	0%
	No	1	100%
	Don't know	0	0%

19. Which of the following pool equipment ECRMs have you partially or fully implemented since receiving the Building Energy Assessment report from SEDAC?	*Response*	*(n=13)*	*Percent of Respondents*
	Fully implemented	2	15%
	Partially implemented	0	0%
	Have not implemented but may in the future	3	23%
	Will not implement	6	46%
	Don't know	2	15%

19b. Did you have finalized plans to install the pool equipment ECRMs before receiving the SEDAC Building Energy Assessment?	*Response*	*(n=2)*	*Percent of Respondents*
	Yes	0	0%
	No	2	100%

19c. Would you have gone ahead with these plans had you not received the SEDAC Building Energy Assessment?	*Response*	*(n=0)*	*Percent of Respondents*
	Yes	0	0%
	No	0	0%

19d. How important was the information provided to you in the SEDAC Building Energy Assessment to your decision to implement the pool equipment ECRMs?	*Response*	*(n=2)*	*Percent of Respondents*
	Very Important	1	50%
	Somewhat important	1	50%
	Slightly important	0	0%
	Not at all important	0	0%

19e. Did you receive a financial incentive or rebate from a utility or Illinois DCEO to implement the pool equipment ECRMs?	Response	(n=2)	Percent of Respondents
	Yes, for all of the equipment	1	50%
	Yes, for some of the equipment	0	0%
	No	1	50%
	Don't know	0	0%

19g. Before you received the SEDAC Building Energy Assessment, had you implemented energy efficient equipment similar to the pool equipment ECRMs at your facility?	*Response*	*(n=2)*	*Percent of Respondents*
	Yes	0	0%
	No	2	100%
	Don't know	0	0%

19h. Did your implementation of the pool equipment recommendations involve replacing existing equipment that was still operational?	Response	(n=2)	Percent of Respondents
	Yes	0	0%
	No	2	100%
	Don't know	0	0%

19i.. How old was the old pool equipment?	*Response*	*(n=0)*	*Age (years)*
	Age in years		0

20. Which of the following refrigeration ECRMs have you partially or fully implemented since receiving the Building Energy Assessment report from SEDAC?	*Response*	*(n=4)*	*Percent of Respondents*
	Fully implemented	1	25%
	Partially implemented	2	50%
	Have not implemented but may in the future	1	25%
	Will not implement	0	0%
	Don't know	0	0%

20b. Did you have finalized plans to install the refrigeration ECRMs before receiving the SEDAC Building Energy Assessment?	*Response*	*(n=3)*	*Percent of Respondents*
	Yes	0	0%
	No	3	100%

20c. Would you have gone ahead with these plans had you not received the SEDAC Building Energy Assessment?	*Response*	*(n=0)*	*Percent of Respondents*
	Yes	0	0%
	No	0	0%

20d. How important was the information provided to you in the SEDAC Building Energy Assessment to your decision to implement the refrigeration ECRMs?	*Response*	*(n=3)*	*Percent of Respondents*
	Very Important	3	100%
	Somewhat important	0	0%
	Slightly important	0	0%
	Not at all important	0	0%

20e. Did you receive a financial incentive or rebate from a utility or Illinois DCEO to implement the refrigeration ECRMs?	*Response*	*(n=3)*	*Percent of Respondents*
	Yes, for all of the equipment	0	0%
	Yes, for some of the equipment	0	0%
	No	3	100%
	Don't know	0	0%

20g. Before you received the SEDAC Building Energy Assessment, had you implemented energy efficient equipment similar to the refrigeration ECRMs at your facility?	*Response*	*(n=3)*	*Percent of Respondents*
	Yes	1	33%
	No	2	67%
	Don't know	0	0%

20h. Did your implementation of the refrigeration recommendations involve replacing existing equipment that was still operational?	*Response*	*(n=3)*	*Percent of Respondents*
	Yes	2	67%
	No	1	33%
	Don't know	0	0%

20i. How old was the old refrigeration equipment?	*Response*	*(n=2)*	*Age (years)*
	Age in years		27.5

21. Which of the following computer power management ECRMs have you partially or fully implemented since receiving the Building Energy Assessment report from SEDAC?	*Response*	*(n=13)*	*Percent of Respondents*
	Fully implemented	3	23%
	Partially implemented	1	8%
	Have not implemented but may in the future	7	54%
	Will not implement	2	15%
	Don't know	0	0%

21b. Did you have finalized plans to install the computer power management ECRMs before receiving the SEDAC Building Energy Assessment?	*Response*	*(n=4)*	*Percent of Respondents*
	Yes	0	0%
	No	4	100%

21c. Would you have gone ahead with these plans had you not received the SEDAC Building Energy Assessment?	*Response*	*(n=0)*	*Percent of Respondents*
	Yes	0	0%
	No	0	0%

21d. How important was the information provided to you in the SEDAC Building Energy Assessment to your decision to implement the computer power management ECRMs?	*Response*	*(n=4)*	*Percent of Respondents*
	Very Important	3	75%
	Somewhat important	0	0%
	Slightly important	1	25%
	Not at all important	0	0%

21e. Did you receive a financial incentive or rebate from a utility or Illinois DCEO to implement the computer power management ECRMs?	Response	(n=4)	Percent of Respondents
	Yes, for all of the equipment	1	25%
	Yes, for some of the equipment	0	0%
	No	2	50%
	Don't know	1	25%

21g. Before you received the SEDAC Building Energy Assessment, had you implemented energy efficient equipment similar to the computer power management ECRMs at your facility?	*Response*	*(n=3)*	*Percent of Respondents*
	Yes	0	0%
	No	2	67%
	Don't know	1	33%

22. Which of the following boiler and water heater ECRMs have you partially or fully implemented since receiving the Building Energy Assessment report from SEDAC?	*Response*	*(n=39)*	*Percent of Respondents*
	Fully implemented	6	15%
	Partially implemented	8	21%
	Have not implemented but may in the future	23	59%
	Will not implement	1	3%
	Don't know	1	3%

22b. Did you have finalized plans to install the boiler and/or water heating ECRMs before receiving the SEDAC Building Energy Assessment?	*Response*	*(n=10)*	*Percent of Respondents*
	Yes	0	0%
	No	10	100%

22c. Would you have gone ahead with these plans had you not received the SEDAC Building Energy Assessment?	*Response*	*(n=0)*	*Percent of Respondents*
	Yes	0	0%
	No	0	0%

22d. How important was the information provided to you in the SEDAC Building Energy Assessment to your decision to implement the boiler and/or water heating ECRMs?	*Response*	*(n=10)*	*Percent of Respondents*
	Very Important	7	70%
	Somewhat important	3	30%
	Slightly important	0	0%
	Not at all important	0	0%

22e. Did you receive a financial incentive or rebate from a utility or Illinois DCEO to implement the boiler/water heating ECRMs?	Response	(n=10)	Percent of Respondents
	Yes, for all of the equipment	0	0%
	Yes, for some of the equipment	2	20%
	No	7	70%
	Don't know	1	10%

22g. Before you received the SEDAC Building Energy Assessment, had you implemented energy efficient equipment similar to the boilers / water heating ECRMs at your facility?	*Response*	*(n=10)*	*Percent of Respondents*
	Yes	0	0%
	No	9	90%
	Don't know	1	10%

22h. Did your implementation of the boilers / water heating recommendations involve replacing existing equipment that was still operational?	*Response*	*(n=10)*	*Percent of Respondents*
	Yes	6	60%
	No	3	30%
	Don't know	1	10%

22i. How old was the old boiler / water heating equipment?	*Response*	*(n=6)*	*Age (years)*
	Age in years		20.8

23. Which of the following compressed air ECRMs have you partially or fully implemented since receiving the Building Energy Assessment report from SEDAC?	*Response*	*(n=6)*	*Percent of Respondents*
	Fully implemented	1	17%
	Partially implemented	3	50%
	Have not implemented but may in the future	2	33%
	Will not implement	0	0%
	Don't know	0	0%

23b. Did you have finalized plans to install the compressed air ECRMs before receiving the SEDAC Building Energy Assessment?	*Response*	*(n=2)*	*Percent of Respondents*
	Yes	0	0%
	No	2	100%

23c. Would you have gone ahead with these plans had you not received the SEDAC Building Energy Assessment?	*Response*	*(n=0)*	*Percent of Respondents*
	Yes	0	0%
	No	0	0%

23d. How important was the information provided to you in the SEDAC Building Energy Assessment to your decision to implement the compressed air ECRMs?	*Response*	*(n=2)*	*Percent of Respondents*
	Very Important	1	50%
	Somewhat important	1	50%
	Slightly important	0	0%
	Not at all important	0	0%

23e. Did you receive a financial incentive or rebate from a utility or Illinois DCEO to implement the compressed air ECRMs?	*Response*	*(n=2)*	*Percent of Respondents*
	Yes, for all of the equipment	0	0%
	Yes, for some of the equipment	0	0%
	No	1	50%
	Don't know	1	50%

23g. Before you received the SEDAC Building Energy Assessment, had you implemented energy efficient equipment similar to the compressed air ECRMs at your facility?	*Response*	*(n=2)*	*Percent of Respondents*
	Yes	0	0%
	No	1	50%
	Don't know	1	50%

23h. Did your implementation of the compressed air recommendations involve replacing existing equipment that was still operational?	*Response*	*(n=2)*	*Percent of Respondents*
	Yes	1	50%
	No	1	50%
	Don't know	0	0%

23i. How old was the old air compressor equipment?	*Response*	*(n=1)*	*Age (years)*
	Age in years		0%

24. Which of the following energy efficient appliance ECRMs have you partially or fully implemented since receiving the Building Energy Assessment report from SEDAC?	*Response*	*(n=4)*	*Percent of Respondents*
	Fully implemented	1	25%
	Partially implemented	0	0%
	Have not implemented but may in the future	2	50%
	Will not implement	1	25%
	Don't know	0	0%

24b. Did you have finalized plans to install the energy efficient appliances ECRMs before receiving the SEDAC Building Energy Assessment?	*Response*	*(n=1)*	*Percent of Respondents*
	Yes	1	100%
	No	0	0%

24c. Would you have gone ahead with these plans had you not received the SEDAC Building Energy Assessment?	*Response*	*(n=1)*	*Percent of Respondents*
	Yes	0	0%
	No	1	100%

24d. How important was the information provided to you in the SEDAC Building Energy Assessment to your decision to implement the boiler and/or water heating ECRMs?	*Response*	*(n=1)*	*Percent of Respondents*
	Very Important	1	100%
	Somewhat important	0	0%
	Slightly important	0	0%
	Not at all important	0	0%

24e. Did you receive a financial incentive or rebate from a utility or Illinois DCEO to implement the energy efficient appliance ECRMs?	*Response*	*(n=1)*	*Percent of Respondents*
	Yes, for all of the equipment	0	0%
	Yes, for some of the equipment	0	0%
	No	1	100%
	Don't know	0	0%

24g. Before you received the SEDAC Building Energy Assessment, had you implemented energy efficient equipment similar to the energy efficient appliances ECRMs at your facility?	*Response*	*(n=1)*	*Percent of Respondents*
	Yes	0	0%
	No	1	100%
	Don't know	0	0%

24h. Did your implementation of the boilers / water heating recommendations involve replacing existing equipment that was still operational?	*Response*	*(n=1)*	*Percent of Respondents*
	Yes	0	0%
	No	1	100%
	Don't know	0	0%

24i. How old were the old appliances?	*Response*	*(n=0)*	*Age (years)*
	Age in years		0

25. Which of the following power generation or system improvement ECRMs have you partially or fully implemented since receiving the Building Energy Assessment report from SEDAC?	*Response*	*(n=3)*	*Percent of Respondents*
	Fully implemented	0	0%
	Partially implemented	0	0%
	Have not implemented but may in the future	2	67%
	Will not implement	1	33%
	Don't know	0	0%

25b. Did you have finalized plans to install the power ECRMs before receiving the SEDAC Building Energy Assessment?	*Response*	*(n=0)*	*Percent of Respondents*
	Yes	0	0%
	No	0	0%

25c. Would you have gone ahead with these plans had you not received the SEDAC Building Energy Assessment?	*Response*	*(n=0)*	*Percent of Respondents*
	Yes	0	0%
	No	0	0%

25d. How important was the information provided to you in the SEDAC Building Energy Assessment to your decision to implement the power ECRMs?	*Response*	*(n=0)*	*Percent of Respondents*
	Very Important	0	0%
	Somewhat important	0	0%
	Slightly important	0	0%
	Not at all important	0	0%

25e. Did you receive a financial incentive or rebate from a utility or Illinois DCEO to implement the power generation or system improvement ECRMs?	*Response*	*(n=0)*	*Percent of Respondents*
	Yes, for all of the equipment	0	0%
	Yes, for some of the equipment	0	0%
	No	0	0%
	Don't know	0	0%

26. Have you partially or fully implemented the smart plug power strip ECRM since receiving the Building Energy Assessment report from SEDAC?	*Response*	*(n=4)*	*Percent of Respondents*
	Fully implemented	1	25%
	Partially implemented	0	0%
	Have not implemented but may in the future	2	50%
	Will not implement	1	25%
	Don't know	0	0%

26b. Did you have finalized plans to install the smart plug power strip ECRMs before receiving the SEDAC Building Energy Assessment?	*Response*	*(n=0)*	*Percent of Respondents*
	Yes	0	0%
	No	0	0%

26c. Would you have gone ahead with these plans had you not received the SEDAC Building Energy Assessment?	*Response*	*(n=0)*	*Percent of Respondents*
	Yes	0	0%
	No	0	0%

26d. How important was the information provided to you in the SEDAC Building Energy Assessment to your decision to implement the smart plug power strip ECRMs?	*Response*	*(n=0)*	*Percent of Respondents*
	Very Important	0	0%
	Somewhat important	0	0%
	Slightly important	0	0%
	Not at all important	0	0%

26e. Did you receive a financial incentive or rebate from a utility or Illinois DCEO to implement the smart plug power strip ECRM?	*Response*	*(n=0)*	*Percent of Respondents*
	Yes, for all of the equipment	0	0%
	Yes, for some of the equipment	0	0%
	No	0	0%
	Don't know	0	0%

26g. Before you received the SEDAC Building Energy Assessment, had you implemented energy efficient equipment similar to the power ECRMs at your facility?	*Response*	*(n=0)*	*Percent of Respondents*
	Yes	0	0%
	No	0	0%
	Don't know	0	0%

26h. Before you received the SEDAC Building Energy Assessment, had you implemented energy efficient equipment similar to the smart plug power strip ECRMs at your facility?	*Response*	*(n=1)*	*Percent of Respondents*
	Yes	1	100%
	No	0	0%
	Don't know	0	0%

27. Which of the following other ECRMs have you partially or fully implemented since receiving the Building Energy Assessment report from SEDAC? Only include measures that are currently installed at the building assessed by SEDAC. Do not include measures that you are planning to install.	*Response*	*(n=12)*	*Percent of Respondents*
	Fully implemented	3	25%
	Partially implemented	1	8%
	Have not implemented but may in the future	6	50%
	Will not implement	2	17%
	Don't know	0	0%

27b. Did you have finalized plans to install the other ECRMs before receiving the SEDAC Building Energy Assessment?	*Response*	*(n=4)*	*Percent of Respondents*
	Yes	0	0%
	No	4	100%

27c. Would you have gone ahead with these plans had you not received the SEDAC Building Energy Assessment?	*Response*	*(n=0)*	*Percent of Respondents*
	Yes	0	0%
	No	0	0%

27d. How important was the information provided to you in the SEDAC Building Energy Assessment to your decision to implement the other ECRMs?	*Response*	*(n=4)*	*Percent of Respondents*
	Very Important	2	50%
	Somewhat important	2	50%
	Slightly important	0	0%
	Not at all important	0	0%

27e. Did you receive a financial incentive or rebate from a utility or Illinois DCEO to implement the other ECRMs?	*Response*	*(n=4)*	*Percent of Respondents*
	Yes, for all of the equipment	0	0%
	Yes, for some of the equipment	0	0%
	No	4	100%
	Don't know	0	0%

27g. Before you received the SEDAC Building Energy Assessment, had you implemented energy efficient equipment similar to the other ECRMs at your facility?	*Response*	*(n=4)*	*Percent of Respondents*
	Yes	1	25%
	No	2	50%
	Don't know	1	25%

28. Did you implement any of the recommended ECRMs in buildings other than the one specifically addressed by the energy assessment?	*Response*	*(n=159)*	*Percent of Respondents*
	Yes	42	26%
	No	109	69%
	Don't know	8	5%

28a. Did you receive a financial incentive or rebate from a utility or Illinois DCEO to implement these additional energy efficiency improvements?	*Response*	*(n=42)*	*Percent of Respondents*
	Yes, for all of the implemented improvements	14	33%
	Yes, for some of the implemented improvements	10	24%
	No	15	36%
	Don't know	3	7%

28d. How important was the information that you received in the SEDAC Building Energy Assessment to your decision to implement the additional improvements?	*Response*	*(n=25)*	*Percent of Respondents*
	Very important	14	56%
	Somewhat important	6	24%
	Neither important or unimportant	2	8%
	Somewhat unimportant	1	4%
	Very unimportant	2	8%

28e. How important was the information that you received in the SEDAC Building Energy Assessment to your decision to implement the additional improvements?	*Response*	*(n=25)*	*Percent of Respondents*
	Very important	12	48%
	Somewhat important	9	36%
	Neither important or unimportant	1	4%
	Somewhat unimportant	1	4%
	Very unimportant	1	4%
	Did not implement any ECRMs at the building assessed by SEDAC	1	4%

29. Have you implemented any additional energy efficiency projects that were not recommended in the SEDAC Building Energy Assessment because of your experience with the SEDAC Building Energy Assessment Program?	*Response*	*(n=159)*	*Percent of Respondents*
	Yes	33	21%
	No	114	72%
	Don't know	12	8%

29a. Did you receive a financial incentive or rebate from a utility or Illinois DCEO to implement these additional energy efficiency improvements?	*Response*	*(n=33)*	*Percent of Respondents*
	Yes, for all of the projects	9	27%
	Yes, for some of the projects	6	18%
	No	15	45%
	Don't know	3	9%

29c. Was the project implemented at the same facility (or facilities) as the energy efficiency measures that you received the SEDAC Building Energy Assessment for?	*Response*	*(n=20)*	*Percent of Respondents*
	Yes	12	60%
	No	8	40%
	Don't know	0	0%

29e. How important was the information that you received in the SEDAC Building Energy Assessment to your decision to implement the additional improvements?	*Response*	*(n=20)*	*Percent of Respondents*
	Very important	4	20%
	Somewhat important	11	55%
	Neither important or unimportant	3	15%
	Somewhat unimportant	1	5%
	Very unimportant	1	5%

29f. How important was your experience with the recommended ECRM'sthat you implemented to your decision to implement the additional equipment projects?	*Response*	*(n=20)*	*Percent of Respondents*
	Very important	3	15%
	Somewhat important	14	70%
	Neither important or unimportant	0	0%
	Somewhat unimportant	1	5%
	Very unimportant	2	10%

	Response	*(n=111)*	*Percent of Respondents**
29g. For the ECRMs that you have not implemented, but may implement in the future, why have you not implemented them yet? (Select all that apply)	Delays in getting approval for the project(s)	19	17%
	Insufficient funds to implement the project(s)	70	63%
	Other priorities for capital improvement projects	65	59%
	Savings not great enough to make the project a priority	42	38%
	Other	13	12%
	Don't know	1	1%

*Since respondents were able to select more than one response, the sum of the percentages in the table above can exceed 100%.

	Response	*(n=52)*	*Percent of Respondents**
29h. For the recommended ECRMs that you do not plan on implementing, why do you not plan on implementing them? (Select all that apply)	Insufficient funds to implement project(s)	30	58%
	Other priorities for capital improvement projects	32	62%
	Savings not great enough to justify the cost	41	79%
	Don't know	0	0%
	Other	0	0%

*Since respondents were able to select more than one response, the sum of the percentages in the table above can exceed 100%.

	Response	*(n=159)*	*Percent of Respondents**
30a. On a scale of very satisfied to very dissatisfied, how satisfied were you with the professionalism of the SEDAC staff or representative who performed the assessment	5	140	88%
	4	15	9%
	3	3	2%
	2	0	0%
	1	1	1%
	Average		4.9

*Each response was assigned a numerical value from one to five (5=Very Satisfied, 4=Satisfied, 3=Neither Satisfied nor Dissatisfied, 2=Dissatisfied, 1=Very Dissatisfied)

	Response	*(n=157)*	*Percent of Respondents**
30b. On a scale of very satisfied to very dissatisfied, how satisfied were you with the credibility of the savings associated with the energy cost reduction measure (ECRM) recommendations	5	108	69%
	4	39	25%
	3	7	4%
	2	2	1%
	1	1	1%
	Average		4.6

*Each response was assigned a numerical value from one to five (5=Very Satisfied, 4=Satisfied, 3=Neither Satisfied nor Dissatisfied, 2=Dissatisfied, 1=Very Dissatisfied)

	Response	(n=160)	Percent of Respondents*
30c. On a scale of very satisfied to very dissatisfied, how satisfied were you with the usefulness of the assessment report for identifying ways to save energy	5	114	71%
	4	40	25%
	3	4	3%
	2	1	1%
	1	1	1%
	Average		4.7

*Each response was assigned a numerical value from one to five (5=Very Satisfied, 4=Satisfied, 3=Neither Satisfied nor Dissatisfied, 2=Dissatisfied, 1=Very Dissatisfied)

	Response	*(n=158)*	*Percent of Respondents**
30d. On a scale of very satisfied to very dissatisfied, how satisfied were you with the performance of the energy cost reduction measures you implemented	5	89	56%
	4	48	30%
	3	20	13%
	2	0	0%
	1	1	1%
	Average		4.4

*Each response was assigned a numerical value from one to five (5=Very Satisfied, 4=Satisfied, 3=Neither Satisfied nor Dissatisfied, 2=Dissatisfied, 1=Very Dissatisfied)

	Response	*(n=154)*	*Percent of Respondents**
30e. On a scale of very satisfied to very dissatisfied, how satisfied were you with the application process for the building assessment	5	105	68%
	4	37	24%
	3	11	7%
	2	0	0%
	1	1	1%
	Average		4.6

*Each response was assigned a numerical value from one to five (5=Very Satisfied, 4=Satisfied, 3=Neither Satisfied nor Dissatisfied, 2=Dissatisfied, 1=Very Dissatisfied)

	Response	*(n=154)*	*Percent of Respondents**
30f. On a scale of very satisfied to very dissatisfied, how satisfied were you with the information provided on financial incentives to implement recommendations	5	92	60%
	4	47	31%
	3	11	7%
	2	3	2%
	1	1	1%
	Average		4.5

*Each response was assigned a numerical value from one to five (5=Very Satisfied, 4=Satisfied, 3=Neither Satisfied nor Dissatisfied, 2=Dissatisfied, 1=Very Dissatisfied)

	Response	*(n=160)*	*Percent of Respondents**
30g. On a scale of very satisfied to very dissatisfied, how satisfied were you with the overall experience with the SEDAC Building Energy Assessment Program	5	121	76%
	4	32	20%
	3	6	4%
	2	0	0%
	1	1	1%
	Average		4.7

*Each response was assigned a numerical value from one to five (5=Very Satisfied, 4=Satisfied, 3=Neither Satisfied nor Dissatisfied, 2=Dissatisfied, 1=Very Dissatisfied)