



Cook County EECBG Energy Efficiency Audit and Implementation Guide

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PROGRAM OVERVIEW

Program Background

On June 24, 2010 the Delta Institute (“Delta”) entered into an agreement with the Cook County Bureau of Community Development and the Cook County Department of Environmental Control on behalf of the County of Cook to manage funds received from the Energy Efficiency and Conservation Block Grant (“EECBG”) Program from the United States Department of Energy. The EECBG program is intended to assist cities, counties, states, territories and Indian tribes in developing, promoting, implementing, and managing energy efficiency and conservation projects and programs. Funding for the EECBG program is derived from federal stimulus dollars authorized by the American Recovery and Reinvestment Act of 2009.

The Delta Institute is a 501(c)(3) public charity whose mission is to promote economic development that is environmentally sustainable and that promotes social equity. Delta’s role in the EECBG program is to assist Cook County with program development and project management to address several objectives of the EECBG Program.

This document and the program that your facility is enrolled in are related specifically to the EECBG objective to promote energy efficiency improvements to commercial and industrial facilities throughout Cook County EECBG eligible communities. To satisfy this objective, Delta will complete approximately 100 commercial building and 50 industrial facility ASHRAE Level II energy audits (and Level III audits if deemed appropriate), and will offer energy efficiency strategy implementation assistance to each building or facility. Delta also has available a limited amount of retro-commissioning grant funds and a revolving loan fund that your facility may qualify for.

The end date of the program is the sooner of July 2011 or the when funding runs out.

Why the Government is Promoting Energy Efficiency

The federal government’s motivation to provide the funding for this and other Cook County EECBG programs stems from a need to:

- **Stimulate the Economy** – Implementation of an energy efficiency program requires that qualified energy auditors and qualified energy retro-fit installation contractors be hired and put to work. This helps to prevent the loss of jobs and in some instances actually creates jobs.
- **Protect the Environment** – In the United States, commercial and industrial facilities account for over 50% of the country’s energy use. Energy savings in this sector can be substantial and reduce the demand for oil, coal, and natural gas. This reduced demand amounts to conservation of our country’s natural resources and a reduction to greenhouse gas emissions.

- **Promote Energy Security** – By reducing its demand for oil, the United States reduces its dependence on other countries that supply a portion of this oil.

Why Energy Efficiency is Important for Facilities

- **Saving Energy is Saving Money** - According to the United States Environmental Protection Agency, commercial and industrial facilities can typically save 30% of the energy that they use through the implementation of energy efficiency measures. Depending on the size and energy requirements of your facility, energy reductions can equate to annual savings that range from tens of thousands of dollars to hundreds of thousands of dollars.
- **Incentives Can Save Money** - Utility company incentives are currently available and can save your facility substantial dollars when implementing energy efficiencies. These incentives are funded through federal stimulus dollars and, at least for the next 6 months, are readily available. However, the climate for incentives cannot be predicted after June of 2011 when federal stimulus dollars run out. The Delta Institute can help you identify and use these utility incentives now.
- **Saving Energy Reduces Risk** - Energy rates can be unpredictable but over the long run, typically rise. Utility rate volatility can cause your energy costs to increase in sometimes large and unexpected ways affecting your company's profits and your ability to budget effectively. By reducing energy usage you reduce the volatility of energy costs to your finances.

Finding the right contractor for a job can be time consuming. EECBG program energy auditors have already been vetted by Delta so that you are ensured of receiving a high quality energy audit. Furthermore, the energy audits offered through the EECBG program are completely ***Free of Charge!***

WHAT TO EXPECT FROM AN ENERGY EFFICIENCY AUDIT

Information Needed to Begin the Audit

Prior to the day of your facility's audit, you will need to supply the Delta approved energy auditor with your electricity and natural gas bills from the last 24 months. While we realize that it may sometimes be difficult to obtain facility utility bills, especially if these must be obtained from a corporate parent, it is very important that your utility bills be provided to Delta. Your energy auditor will analyze the bills to understand your facility's energy usage patterns and energy rates, and it is this analysis that will help the auditor to complete a focused audit of your facility. If the auditor does not have access to your utility bills, the quality of your audit will be compromised. Consequently, if a minimum of 12 months of utility bills have not been provided to Delta within 48 hours of your facility's audit date, *your audit may need to be postponed* until the utility bills can be obtained.

You will also need to sign a Memorandum of Understanding (“MOU”) that outlines both your responsibilities and Delta’s responsibilities during the actual audit. A sample copy of the MOU is attached to this document.

You can expect an average audit to last from 3 to 4 hours for a typical 40,000 square foot commercial facility, For a larger industrial facility, the audit may require a full day (8 hours) or as many as two days. Further details about the audit process are provided below.

The auditor will prepare an audit report of his or her findings which will be sent to Delta. Delta will review the report, send it to your facility, and set up a follow-up visit to discuss the results of the audit.

Audit Process

As part of the audit process, the auditor will:

- Conduct a one to two day site visit consisting of a 30 to 40 minute kick-off meeting, a tour of the facility followed by a more detailed study of specific equipment or process areas, and an exit meeting. In the case of a more complex industrial facility this single site visit may be divided into two visits: an initial site visit comprised of the kick-off meeting and a tour of the facility followed by the audit/detailed study of specific equipment or process areas on a subsequent day. For complex facilities the two visit approach allows the auditor to prepare for the audit/detailed study based upon observations made during the initial site visit.
- Analyze existing systems and equipment possibly through on-site metering. The audit analysis is likely to include your facility’s HVAC, lighting, water heating, and air compressor systems as well as any process systems i.e. manufacturing process lines. The auditor’s movement and activities are typically unobtrusive to operations. However, it will be necessary for a knowledgeable facility person to accompany (or be available) to the auditor to answer questions, provide access to locked portions of the facility etc.
- Develop energy conservation measures (ECMs) for specific operations, equipment, or areas of the facility.
- Prepare a draft efficiency implementation plan providing an overview of the site visit, summarizing the energy baseline for the facility, and presenting the ECMs and recommendations for implementation.

Program Timelines

The program timeline for your facility begins with Delta's receipt of your facility's application. Subsequent action items and steps in the energy audit process are as follows:

Action Item	Time Frame
Application processed/auditor assigned by Delta	Within 1 week of receipt of application
Initial Site Visit Scheduled by Delta	Within 2 weeks of receipt of application
Site Visit/Audit	Within 6 weeks of receipt of application
Duration of Audit	½ day to 2 days
Audit Report Delivered to Delta	Within 2 to 3 weeks of the Site Visit/Audit
Delta Review of Audit	Within 5 days of receipt of audit
Audit Delivered to Facility	Within 3 to 4 weeks from Site Visit/Audit
Implementation/Follow up Meeting with Delta	Within 1 week of delivery of audit to facility

The maximum amount of time from submission of your application to the follow up meeting with Delta should not exceed 3 months.

IMPLEMENTATION

As part of its role as administrator of the EECBG program, Delta can also provide each facility with assistance regarding implementation (as described below), incentive qualification, retro-commission grants, and financing. This service is funded by the EECBG program and so is provided at *no cost* to your facility.

Implementation Assistance

Your facility's customized audit report will be a multi-page document that will recommend both low cost/no cost Maintenance & Operations measures and ECMs as well as ECMs that require a capital investment in order to implement. During Delta's follow up visit with your facility, a Delta representative will discuss the results of your audit with you to help:

- Facilitate review of the report and decision making in order to reduce the amount of time dedicated to this process by your management;

- Make decisions which reduce plant downtime/lost productivity (in the case of a capital project);
- Determine which ECMs are economically feasible for you to implement based on your company's financial position and guidelines;
- Understand and compute financial metrics for each ECM, such as net present value and return on investment, so that you can understand the financial value to your company of implementing ECMs;
- Understand and expedite application for Nicor Gas, Commonwealth Edison (ComEd) and other incentives presented in the audit report;
- Explore alternate utility price structures; and
- Assist in selection of a retro-fit contractor, analyze bids, and select finance alternatives if you decide to implement a capital project.

Financial Assistance

During your follow up meeting with Delta, we can discuss what financing alternatives are right for your facility if you choose to implement any of the recommended ECMs. Prior to the meeting, it is important for you to consider what maximum payback periods, interest rate, and loan terms are acceptable to your facility.

- **Incentives**

Financial incentives for energy efficiency implementations are currently available through Nicor Gas and through ComEd and can apply to systems such as lighting, HVAC, compressed air, motors, and sensors and controls. Incentives can significantly defray first costs on implementations and reduce payback periods. Delta can assist you with the understanding of and application for incentives identified in your audit report.

- **Loan Products**

As an additional option to finance the capital costs of energy efficiency retrofitting, Delta is able to offer funds from a revolving loan pool to qualified applicants. Funding is provided through the EECBG program with additional lending capacity provided by Delta's partner, Family Federal. Delta will provide the technical underwriting for the loan with Family Federal providing the financial underwriting. Loans will be placed through Family Federal with principal amounts generally ranging from \$25K to \$250K, a competitive interest rate, and a maximum loan term of 7 years.

While lending qualifications will be determined by Family Federal on a case by case basis, applicants will need to provide certain basic information in order to begin the loan application process:

- Designated Contact Person within your organization. This person will also be the authorized signer for the loan.
- Basic information regarding your business including:
 - Federal Tax Identification Number
 - DUNS Number
 - Corporate Structure
 - Ownership
- Energy Efficiency Audit
- Financial Information
 - Balance Sheet (past 2 years plus interim)
 - Income Statement (past 2 years plus interim)
 - Current Debt Schedule

- **Retro-Commissioning Grant Qualification**

Through EECBG funding, Delta also has access to a limited amount of grant funds to offer to facilities for retro-commissioning. Delta will work with you to determine if your facility is eligible for these funds.

Retro-Commissioning is a systematic process for investigating, analyzing, and optimizing the performance of building systems through low cost operational and maintenance (O&M) improvement measures and through ensuring their continued performance over time. A portion of the implementation cost of some of the Low Cost ECMs recommended in your audit report might qualify for a retro-commission grant.

If your facility is eligible to receive a retro commissioning grant, Delta will supply you with an approved contractor to perform the selected O&M activities.

NEXT STEPS TO SUSTAINABILITY

Creating a more energy efficient facility is an important step towards sustainability. Other steps can include LEED green building certification, implementation of renewable energy generation, green purchasing, and waste re-use/waste to profit. Delta can help you assess whether pursuit of these initiatives is right for your facility.