

Guidelines for Energy Efficiency Audit (EEA) Requirements

As part of the Recharge New York (RNY) program, this guide has been developed to assist customers with the Energy Efficiency Audit (EEA) requirement. An EEA is to be performed within each facility, as specified in the RNY contract, at least once during a 5 year term commencing on the first day that RNY power is received. The EEA shall be submitted to NYPA along with the checklist attached. Be sure to provide your Energy Efficiency Auditor with a copy of the checklist to ensure all requirements are met and included in the EEA.

The EEA guidelines have been updated to reflect removal of the Benchmarking Report requirement and the inclusion of a waiver for LEED-certified facilities following determination that the Benchmarking Report requirement presented significant challenges to manufacturing and other customers in the RNY power program; and recognition that LEED certification of customer facilities meets or exceeds the intent of the EEA Reporting requirement for the RNY power program.

An EEA report is to be provided including each of the four sections described below:

- **Energy Use Intensity (EUI) Score**

EUI expresses the energy consumed by a typical building as a function of the building's size. EUI is commonly measured in thousands of Btu (kBtu) per gross square foot of building area. Manufacturing facilities will use a different type of EUI.

- **Low-Cost / No-Cost Measures** – These are low-cost/no-cost measures for improving energy efficiency within your facility. These may include energy saving measures such as:
 - Reducing operating hours of equipment by optimizing equipment schedules.
 - Replacing incandescent light bulbs with compact fluorescent lights.
 - Installing controls on lighting such as occupancy sensors.
 - Installing programmable thermostats, and repairs to equipment to correct inefficient operation.

For a manufacturing facility, some typical low-cost/no-cost improvements include repair/replace steam traps and repair leaks in compressed air system.

For each measure, include the cost of the measure, the projected annual cost savings, and the simple payback period of each measure. Simple Payback Period is the cost of each measure divided by the projected annual energy cost savings.

- **Energy Improvement Projects** – Provide a list of potential capital improvement projects for improving energy efficiency. An EEA of the facility will provide a list of recommended energy saving projects or energy conservation measures (ECMs). These recommended energy saving projects shall each be described with a one-page description, which includes a description of the existing equipment and the recommended equipment to be installed.

- **Energy Project Assessment** – For each Energy Improvement Project (listed in Step 4 above) provide an initial financial evaluation of potential costs and savings of each project. The financial evaluation of each Energy Improvement Project must include:
 - The cost of the project
 - The projected annual cost savings
 - The simple payback period of each project.

Simple Payback Period is the project cost divided by annual energy cost savings. On the Checklist, on last line, please write the page number of the EEA which shows the total energy saved.

Definitions for Energy Efficiency Audits (EEA's)

Energy Efficiency Audit (EEA): An engineering study that quantifies how energy is used in a building and identifies opportunities to improve the building's energy efficiency and reduce utility expenses.

Energy Start Portfolio Manager: A web-based benchmarking tool that enables users to track building energy use and compare energy efficiency performance to similar buildings.

Energy Use Intensity (EUI): EUI expresses the energy consumed by a typical building as a function of the building's size. EUI is commonly measured in thousands of Btu (kBtu) per gross square foot of building area. Manufacturing facilities will use a different type of EUI.

Gross Floor Area: Gross floor area is considered the total square foot of building space as measured from the principal exterior surfaces of the enclosing fixed walls. It should include main activity space, entrance ways, stairways, elevators, hallways, occupant kitchens, storage area, and any other common spaces the building.

LEED Certification: Certification of a building or facility as meeting the U.S. Green Building Council's requirements for LEED (Leadership in Energy and Environmental Design) at a specified level in accordance with either the v2009 or the v4 protocols. Submission of the certification documents from the USGBC is required to obtain an EEA reporting waiver.

Checklist for Energy Efficiency Audits (EEA's)
NYPA ReCharge New York (RNY) Program

This Checklist is to be reviewed by the RNY customer to ensure that all of the required components of the EEA are completed before they are submitted to NYPA. This checklist must be submitted by the customer along with the EEA report.

For each facility which is included in the RNY contract with the New York Power Authority, please provide the following information:

Company Name:	
RNY Application ID (CFA) #:	

I am submitting LEED Certification to obtain the LEED-certification waiver

Utility Account Number	Facility Address
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	

(If additional space is needed for utility accounts included in the EEA, please include on a separate sheet.)

Energy Utilization Index	For Electric Customer Review		For use by NYPA Only	
	Reviewer Initials	Review Date	Reviewer Initials	Review Date
The energy utilization index is determined				

Low-Cost / No-Cost Measures	For Electric Customer Review		For use by NYPA Only	
	Reviewer Initials	Review Date	Reviewer Initials	Review Date
List of Low-Cost / No-Cost Measures				
Analysis of Low-Cost / No-Cost Measures				
Simple Payback Period of each measure				

Additional Energy Efficiency Audit Related Resources

Per the ReCharge New York contract, each customer is required to perform an energy efficiency audit, once within every 5 years of the contract terms. Several agencies and resources have proved to be helpful to some of the ReCharge customers including Energy Star Portfolio Manager, NYSERDA FlexTech Program and the Syracuse IAC Assessment. Additional information on these offerings is provided below.

Energy Star Portfolio Manager:

This is a no-cost, online tool that assists in satisfying the EUI score requirement. The following links provide more information:

For existing buildings:

<http://www.energystar.gov/buildings/facility-owners-and-managers/existing-buildings/use-portfolio-manager>

For industrial facilities:

<http://www.energystar.gov/buildings/facility-owners-and-managers/industrial-plants>

For plants:

<http://www.energystar.gov/buildings/facility-owners-and-managers/industrial-plants/measure-track-and-benchmark/energy-star-energy>

For Help with LEED certification:

<http://www.usgbc.org/cert-guide>

NYSERDA FlexTech Program:

NYSERDA's FlexTech program offers cost-shared energy studies to NYS industrial and commercial facilities, state and local governments, not-for-profit and private institutions, public and private K-12 schools, colleges and universities, and health care facilities. Facilities must pay into the electric or gas System Benefits Charge (SBC) to be eligible for a cost-shared energy study.

Benchmarking can be included in the scope of the FlexTech energy study; when benchmarking is included in the overall scope of the study, it is included in the cost share by NYSERDA.

A stand-alone benchmarking study is not covered by the cost share by NYSERDA.

Energy Studies:

Who Can Participate? Public and private customers who meet all of the following:

- Non-residential facilities in New York State
- Peak electric demand over 100 KW
- Pay into the electric or gas SBC charge including:
 - Industrial and commercial
 - Health care
 - Not-for-profit and private institutions, public and private K-12 schools colleges and universities
 - State and local governments

Free energy assessments are available to small commercial customers and not-for-profit customers with a peak electric demand below 100 KW and less than 10 employees. These free assessments are not available for public sector customers.

NYSERDA FlexTech web site:

<http://www.nyserderda.ny.gov/Energy-Efficiency-and-Renewable-Programs/Commercial-and-Industrial/CI-Programs/FlexTech-Program.aspx>

Syracuse University IAC Assessment:

Syracuse IAC is focused on manufacturing facilities only (i.e., no commercial buildings, hospitals, etc.).

Eligible SIC codes for manufacturing 20-39/NAICS 31-33

•Agriculture, NAICS 11 excluding:

- NAICS 111 - Crop Production
- NAICS113 - Forestry and Logging
- NAICS 114 - Fishing, Hunting and Trapping

•Mining, NAICS 21 excluding:

- NAICS 213 - Support Activities for Mining

The annual energy cost requirement to be eligible is as follows:

- \$2 million maximum limit, based on all utility and fuel bills

Once the above requirement is met, 3 of the 4 following criteria must be met for the facility:

- Sales under \$100 million
- Fewer than 500 employees
- Utility bills over \$100k
- No in-house energy professional

All four of the above criteria do not have to be met, only 3 of 4.

In the cases where a facility does not meet the eligibility criteria as shown above, and where an assessment would provide a significant benefit, Syracuse IAC can seek a waiver (on a case by case basis) from the national IAC program.

Syracuse IAC assessment is available across all of NY state.

Link to Eligibility Criteria:

<http://iac.syr.edu/Eligibility.html>