

Guidance on providing an energy usage baseline

You cannot manage what you do not measure. This premise is why the first step toward saving energy is analyzing the current energy consumption of your facilities. A comprehensive energy baseline typically consists of at least two years of consumption and expenditure data for each energy utility (electric, gas, oil, propane, etc.) for all the facilities managed by an entity.

Over the past three years, as part of the Rhode Island Public Energy Partnership, the Office of Energy Resources (OER) contracted with the University of Rhode Island Extension Outreach Center to complete energy baselines for all Rhode Island municipalities and public school districts.

In cases where we were able to connect with the municipality or school department, we attempted to collect all the necessary information to create facility profiles in ENERGY STAR Portfolio Manager, a free online energy monitoring tool developed by the U.S. Environmental Protection Agency. In addition to energy consumption and expenditure, this data includes account numbers, square footage, property use details, operating characteristics, etc. Portfolio Manager uses this information to calculate an energy use intensity (kBtu/ft²/yr) as well as greenhouse gas emissions for each building. In cases where we were not able to connect with the municipality or school department, we gathered more limited data from National Grid, but did not complete a Portfolio Manager profile.

If the applicant has had its baseline completed by URI, the applicant should access its Portfolio Manager account and follow the instructions under the “What to Submit” section below.

If the applicant needs assistance in accessing and/or updating its Portfolio Manager account, would like assistance in completing its baseline, or does not know the extent to which its baseline has been completed, please contact Kristina DiSanto from the URI Extension Outreach Center at kdisanto@uri.edu or 401-874-4524.

If the applicant has completed a baseline energy inventory on its own, please follow the instructions under the “What to Submit” section below.

If the applicant is a quasi-state agency, please contact Rachel Sholly with the OER at rachel.sholly@energy.ri.gov or 401-574-9121.

WHAT TO SUBMIT: Applicants should submit the information described below in both electronic form and in hardcopy as attachments to the application.

(1) Energy Usage Baseline: At least two (2) years of monthly consumption and expenditure data for each energy utility (electric, gas, oil and propane) for each facility managed by the applying entity. Data prior to 2010 should not be included. The baseline must include at least electric and natural gas information for each and every facility that is owned or operated by the applicant, not just those being considered for project financing in this application. We strongly recommend that the baseline also include oil and propane information for each facility, however, oil and propane information is only required for those facilities that are included in your application.

We encourage the use of ENERGY STAR Portfolio Manager to compile this submission, however, Microsoft Excel is also an acceptable submission format. If submitting through ENERGY STAR Portfolio Manager, the applicant should use the “Download Entire Portfolio” function in Portfolio

Manager to generate a file for this submission. “Download Entire Portfolio” can be found on the bottom right corner of the home page.

(2) Baseline Narrative: A narrative, no longer than one (1) page, outlining the major findings of the energy data baseline. The analysis should include notes on:

- Facilities with the highest energy consumption and/or expenditure
- Facilities with the highest energy use intensity and/or cost per SQFT
- Facilities that have a noticeable increase or decrease in energy consumption and/or expenditure over time
- Potential reasons why facilities are showing certain data trends

Guidance on developing a strategic energy management plan

For the purposes of the Efficient Buildings Fund (EBF) application, an energy management plan (EMP) is a broad-reaching document that serves as a long-term planning resource and is used by an entity to drive and guide progress toward a more secure, cost-effective and sustainable energy future. An EMP submitted as part of the EBF must include, at a minimum, an energy reduction goal and an implementation plan to achieve that goal.

Energy Reduction Goal: The energy reduction goal should be expressed as a percent reduction in energy usage of all facilities under the entity's control below a baseline year(s) by a certain year in the future. The energy baseline analysis described in the above guidance can inform the target and help to ensure that it is aggressive yet achievable. The applicant may want to set short-, medium- and long-range goals.

Implementation Plan: The implementation plan should outline steps that the applicant will take over the next few years to more thoroughly assess opportunities, implement energy efficiency projects and achieve its energy reduction goals. This piece of the EMP should combine findings from the baseline analysis with what is known about the condition and operations of the facilities (based on recent energy audits and/or anecdotal information) to identify potential opportunities for energy savings. The plan might also include the projects proposed in this application, noting how far they will go toward achieving the entity's energy reduction goal and using the project proposal to outline what resources may be needed (e.g. funds, staff, timing, etc.) to implement future projects. Then the plan should address what steps will be taken to ensure that, when new energy savings opportunities are identified, projects continue to get implemented.

Other plan components might include:

- A vision or policy statement prioritizing sustainable energy ideals and actions
- A greenhouse gas emissions reduction goal
- A renewable energy goal
- A reporting process for tracking progress (e.g. identify specific metrics for measuring success, reporting frequency, who will be responsible for gathering and reporting metrics, etc.)
- Potential funding sources and financing mechanisms for future projects
- An individual or team that will be responsible for driving these efforts
- A protocol for continuing to monitor energy consumption and maintain equipment efficiency
- Guidelines for continuous improvement
- Building occupant education

Technical Assistance: A template report can be downloaded from the OER website at www.energy.ri.gov. Additionally, the University of Rhode Island Outreach Center's energy team is available at no cost to assist entities as they develop EMPs. Contact Kristina DiSanto from the URI Outreach Center at kdisanto@uri.edu or 401-874-4524 for assistance.

WHAT TO SUBMIT: Please submit electronically and in hardcopy as attachments to the application, the applicant's energy management plan, including, at a minimum, an energy reduction goal and an implementation plan as described above. Entities that wish to apply to the Efficient Buildings Fund but do not currently have an up-to-date EMP or one that meets the guidelines above are encouraged to develop an EMP prior to submitting their applications. If, however, that is not possible, please submit a letter of commitment to develop a plan within six (6) months of loan closing. In this case, the OER will require periodic progress reports to verify that EMP development is in fact occurring.