Community Energy Challenge:

Promoting Energy Efficiency and Renewables in New England Cities and Towns

EPA challenges all New England communities to save money and reduce air pollution by assessing their energy use, taking action to improve energy efficiency, and seeking out renewable energy choices. EPA provides technical assistance to every community that joins the Challenge!

Participants assess energy use in schools, municipal buildings and/or wastewater/water treatment facilities. Reductions of 10% or more earn ENERGY STAR® recognition. EPA offers free training and technical assistance.

The Community Energy Challenge is an opportunity for municipalities across New England to identify simple and cost-effective measures that increase energy efficiency and renewable energy use while reducing air pollution and saving money.

Why are Energy Efficiency and Renewables so Important?

▶ Saves Money

New England has among the highest energy costs in the nation.

- New England's 1500 cities, towns and associated school districts together spend nearly one billion dollars every year on energy for buildings.
- Our 4500 public K-12 schools spend more than $500 million on energy – more than on textbooks and computers combined.

▶ Cuts Pollution

Energy use is the number one source of air pollution in New England and the nation.

- Electricity generation alone emits 48% of SO_2 and 8% of NOx emissions in New England.
- Nationally, electricity generation accounts for 43% of mercury emissions and 40% of carbon dioxide emissions.
- Energy from renewable sources (renewables) emits fewer pollutants during production and use.

▶ Reduces Strain on Limited Energy Supplies

Energy demand in New England has been growing at 1.5% per year.

- Energy efficiency can dramatically reduce the chances of price increases and supply disruptions. It is also the cheapest and most environmentally sound way to slow this increasing demand.
- Use of renewables helps diversify energy supply and supports domestic production.

continued ➲

Accessible and Achievable

Every community has opportunities to improve energy efficiency and increase use of renewables cost-effectively today.

- Numerous national studies agree that, on average, 30% of the energy used in commercial, institutional and public buildings is wasted.
- Savings of 10% or more are well within the reach of every community and school district through sensible management changes and cost-effective upgrades using proven, existing technologies.
- A 10% reduction across New England's municipal and school buildings could save $100 million, prevent billions of pounds of carbon dioxide emissions, and save enough energy to power tens of thousands of homes for one year.
- New England already offers a variety of renewable energy choices.

Please visit our Web site at:

www.epa.gov/ne/eco/energy/energy-challenge.html

EPA United States Environmental Protection Agency New England

EPA-901-F-07-003
July 2007

Communities that join the Challenge will receive:

- Targeted training and technical support in the use of the ENERGY STAR® Portfolio Manager benchmarking software. Assessing performance is the first step toward identifying opportunities to improve energy efficiency through better facility management, upgrades to lighting, HVAC, controls, and other building systems and equipment.

- Assistance in efforts to increase their use of renewable energy, through renewable energy credits and the development of small scale renewable energy projects.

Communities that take the Challenge agree to:

- Make a commitment to improve energy efficiency.

- Assess—benchmark—the energy performance of all municipal buildings, schools and/or drinking water/ waste water treatment facilities in the community.

- Set a goal to reduce energy use by 10% or more.

- Return a Community Energy Challenge letter to EPA New England.

- Promote energy efficiency and renewables to citizens, companies and organizations in the community.

Why Benchmark?

- Using EPA's Benchmarking tool helps a community establish an energy use baseline, making it easy to track improvements in efficiency over time.

- Benchmarking provides a uniform tool to compare progress across communities.

- Buildings that are benchmarked and achieve a certain level of performance receive recognition from EPA.

- It is easy to track further progress in improving energy efficiency in buildings that have been benchmarked, making possible further energy and financial savings.

- These improvements can help a community meet other environmental goals, such as a reduction in local air pollution and greenhouse gas emissions.

How will EPA help?

- EPA New England and EPA ENERGY STAR contractors will provide free, live web-based training in benchmarking and energy management, including follow up technical support, to all participating communities.

- EPA New England will recognize community achievements under the Challenge and track overall progress.

- Participating municipalities may be eligible for national EPA recognition:

  - ENERGY STAR Leaders – for a demonstrated average reduction of 10% or more across all buildings.

  - ENERGY STAR Label – awarded to buildings performing in the top 25% according to the National Energy Performance Rating System.

- EPA New England will organize additional recognition activities, including, but not limited to: media events to highlight progress; case studies posted on the web; and articles in general and trade publications.

- EPA will encourage members of our extensive partner network, notably regional utilities, and energy service and product providers, to help Challenge participants implement their energy efficiency plans.

For more information, contact:

Lucy Edmondson
(617) 918-1004
edmondson.lucy@epa.gov

Shubhada Kambli
(617) 918-1584
kambli.shubhada@epa.gov

John Moskal
(617) 918-1826
moskal.john@epa.gov

Jason Turgeon
(617) 918-1637
turgeon.jason@epa.gov

Norman Willard
(617) 918-1812
willard.norman@epa.gov

EPA United States Environmental Protection Agency New England

Entering a Building in Portfolio Manager to Track Energy Performance

You can now track and measure *all* of your buildings' energy use with EPA's Portfolio Manager. This online tool calculates site energy intensity and weather-normalized source energy intensity for any building type; for certain building types it also provides a national energy performance rating. Once a baseline is established, Portfolio Manager can calculate the percent energy use reduction to track progress towards your goals. Note that we will use buildings and facilities interchangeably.

Establish a user account in Portfolio Manager

- Go to www.energystar.gov/benchmark and login to Portfolio Manager. If you do not already have a user account in Portfolio Manager, click the New User link on the Portfolio Manager login page and follow the instructions.
- Enter your building information and begin tracking energy performance with Portfolio Manager. For more information on how to use Portfolio Manager, take the Portfolio Manager Tour and review the available Trainings and Presentations at www.energystar.gov/benchmark.

To Enter a Building into Portfolio Manager:

Step 1:

- From the "My Portfolio" page, click on "Add Facility" to add a building to your portfolio.
- Add your general facility information and click SAVE.

Note: Once you add a building, you can edit the general facility information by clicking the "Edit" link in the "General Information" section of the "Facility Summary" view.

Step 2:

- From the "Facility Summary" page, click on "Add Space" in the Space Use section.
- Indicate a name for the space (e.g., Main Library, Office, K-12, etc.).
- Select the appropriate space type from the drop-down menu, or choose Other.
- Indicate an Effective Date for this space data. This is usually the date of construction or the most recent major renovation. Click CONTINUE.

Note: Depending on the space type selected, you may be prompted for further detail. Click continue when done.

Step 3:

- Enter the space attributes, such as gross floor area, number of occupants, number of personal computers in use, operating hours/week, and the date of building construction or the last major renovation. Click SAVE.

Note: The attributes vary by building type. If the precise information is unavailable, you may check the box designating it as a temporary value. An alert will appear to remind the user to verify this information.

Step 4:

- From the "Facility Summary" page, click on "Add Meter" in the Energy Meters section.
- Indicate a name for the meter. This field may contain letters, numbers or your utility service agreement number (e.g., Electric, 10002748, etc.).
- By default, the meter applies to all of the facility. It could also only apply to one of the spaces entered earlier. Check as appropriate.
- Select the meter type and units from the corresponding drop-down menus.
- Verify the statements next to the radio buttons confirming that the meters serve the facilities, and they are active. Click SAVE.

Note: Repeat Step 4 to create one meter for each fuel type purchased for the facility.

Step 5:

- Select the number of months of utility data to enter from "Meter Entries to Add" drop-down menu. Then enter the starting date using the MM/DD/YYYY format.

Note: Portfolio Manager will automatically create fields with the start and end dates for each period

- Enter the total energy consumed that period and the total cost for each month. If the beginning and ending dates do not match your utility bill, make the appropriate changes. Click SAVE.

Congratulations, you have entered a building! You may now track its energy use. Portfolio Manager also allows you to track water use. For additional information, click the HELP or CONTACT US on the Portfolio Manager menu bar.