

Rebuild Connecticut Partnership Initiatives



"Strengthening Communities Through Energy Efficiency"

Issue 22- September 2000

2nd Round Solicitation Results Announced

The Office of Policy and Management (OPM) is pleased to announce the results of the second solicitation focusing on municipal partnering with K-12 schools and/or higher education facilities. A team of evaluators, using criteria established in the proposal solicitation, reviewed and ranked proposals received by the August 1st deadline.

The following three communities were selected and will receive grants for their projects. Two of the communities, **New Britain** and **Wallingford**, are new to REBUILD AMERICA, while **Tolland** joined the program in March.

Tolland will initially focus on the oil heating system at Tolland High School. Efforts will then be expanded to review and analyze energy usage and efficiency needs in the entire public school system.

New Britain has been making retrofits over the past few years. However, this grant will allow them to develop their REBUILD AMERICA action plan and to undertake a complete needs assessment of school facilities. The city will then begin the process of comprehensive efficiency measure implementation. A portion of the funds will be used to provide training for staff in the operations and maintenance of energy equipment.

Wallingford is taking a different approach by initially focusing on the student population. Training will be provided to give students enough of an energy background to evaluate the lighting in their buildings. The students will then present their recommendations to the principal and school custodian. A competition between schools will also be set up to recognize the school that shows the greatest percentage of energy savings. This type of approach has proven to be successful in other REBUILD communities.



Energy Outlook- Winter 2000-2001

Volatility of heating oil prices over the next several months appears certain. High natural gas prices are here. There doesn't seem to be any relief on the horizon. Many factors are converging to make heating during the upcoming winter expensive.

- Demand for oil is strong, not only in the United States, but worldwide. This fact has allowed the Organization of Petroleum Exporting Countries (OPEC) to become much more effective than they were just a year or so ago at controlling prices by controlling crude supplies.
- Because of strong demand, refineries in the United States are running at near-full capacity.
- Stocks of natural gas, oil, and refined product are well below normal levels for this time of year. Oil inventory is not increasing as quickly as necessary prior to winter peak demands. Experts estimate a need to build weekly inventory by 4-5 million barrels to "catch up". Inventory builds have been considerably smaller to date.
- Less refined product is being stored to reduce inventory costs and industry exposure to market volatility.
- Interruptible gas customers add to the mix of uncertainty. If those customers end up being shifted off of natural gas for any reason, the back-up fuel is typically oil. That situation will add to the demands on oil product.
- Most new electric generation coming on-line is produced using natural gas. The increased demand will maintain upward pressure on natural gas prices.
- The release of petroleum product from the strategic petroleum reserve will serve to soften

prices somewhat, but represents less than two days of consumption in the United States.

- A colder-than-normal winter could drive up demand, which would keep an upward pressure on prices. Extreme weather could result in transportation problems with petroleum for short periods, with temporary upward pressure on prices.

Given the trends and uncertainties, the most effective approach for municipalities is to implement efficiency measures to help alleviate price shock and reduce demand.

See the following article for ideas and approaches. 



A Key to Energy Savings - Operations & Maintenance

Any given building may not be operating as efficiently as intended, due to changes in use, alterations to the building, improper system installation, or poorly designed systems. Effective operations and maintenance (O&M) can result in a building that operates well and could reduce both energy and maintenance costs over the long run.

The following checklist, excerpted from the U. S. Department of Energy web site, contains some O&M practices that should be considered. *This is not a complete checklist - A more comprehensive checklist can be found on their web site (see end of article).*

Building envelope

- Replace broken/cracked window panes.
- Replace weatherstripping and caulking where needed.
- Check automatic door closures for proper operation.
- Replace worn seals and weatherstripping in stairwells and elevator shafts, and on basement and rooftop service doors.

Boilers

- At minimum, tune boilers annually.
- Replace door gaskets that do not provide a tight seal.
- Inspect the boiler for deposits of scale or accumulated sediment on water-side surfaces. Make sure to inspect the rear of the boiler, since this area is most susceptible to scaling.
- Inspect the fire-side for deposits of soot and slag. Pay particular attention to the refractory surface. Adjust the air to fuel ratio if necessary to obtain a clean burning fire.

- Inspect the boiler insulation, refractory, brickwork, and boiler casing for hot spots and air leaks. Repair or seal if necessary.
- Check the boiler stack temperature. If it is more than 150°F above the water or steam temperature, clean the tubes and adjust the burner.
- Clean mineral or corrosion buildup on gas burners.
- Observe the fire when it shuts down. If the fire does not immediately cut off, the solenoid valve may need repair or replacement.
- Repair oil leaks at pump glands, valves, and relief valves.

Hot and Chilled Water Piping

- Clean strainers regularly.
- Remove any clogs from vents.
- Inspect heating and cooling heat exchangers. Temperature differences may be an indicator of air binding, clogged strainers, or excessive levels of scale. Determine the cause of the problem and correct it.

Steam Piping

- Repair or replace insulation on all mains, risers, and branches as well as economizers and condensate receiver tanks as necessary.
- Inspect zone shut-off valves and shut off steam to any unoccupied spaces.
- Adjust, repair, or replace any faulty steam traps.
- Repair leaks in the vacuum return system.
- Correct any excessive noise in the system, particularly water hammer.

Service Hot Water

- Inspect pipes and tanks frequently. Repair leaks and repair/replace loose or hanging insulation.
- Repair all leaking faucets.
- Flush the water heater during seasonal maintenance.

To find additional ideas on O&M implementation, visit www.eren.doe.gov/energysmartschools/om_employ.html The web site list was taken from "Energy Management: A Program to Reduce Cost and Protect the Environment", Enviro-Management & Research, Inc., Arlington, VA, for U.S. General Services Administration and the Electrification Council, 9/94. 

REBUILD AMERICA is a program which consists of people working as partners on a local level to renovate buildings for improved energy efficiency. REBUILD AMERICA partnerships help make communities stronger by stimulating economic growth, creating jobs, saving money, and improving environmental quality while saving energy.

Rebuild Connecticut Partnership Initiatives is designed to inform partners about energy opportunities and to share successes of partner activities. Contributions can be sent to: John Ruckes, OPM/Energy, 450 Capitol Avenue, MS# 52ENR, Hartford CT 06106-1308; by fax (860) 418-6495; or by e-mail: john.ruckes@po.state.ct.us