It’s More Than Just Energy!

CT Department of Energy and Environmental Protection
Energy Efficiency Investments Mean Healthier People and Buildings

▪ Reducing energy use is a cost-effective solution to reduce operating costs while maintaining quality of services

▪ Reducing water use and reducing materials waste increases sustainability of businesses and resources

▪ Energy efficient equipment means better air quality outdoors and inside your facility
CT’s Focus on Sustainability: Environmental and Economic Goals

- Improves businesses competitiveness through focus on bottom line
- Reduces energy consumption
- Advances renewable energy production
- Manages resources responsibly
Protect the Environment and Protect Your Money: Examples

- Negotiate contracts with waste hauler to have more recycling options (Food Grease, Food Waste, unit-based pricing)
- Composting (less solid waste and more compost for landscaping)
- Sustainable and Green Products (Post-Consumer Products, SFI products, Green Seal, Energy Star, Fair Trade)
- Assess energy consumption and invest in efficient equipment
- Renewable Energy (Solar, Geothermal, Anaerobic Digesters, CHP, Microgrids)
“Nationally drinking water and wastewater systems account for 3 to 4 percent of the nation's energy use. This is equivalent to 56 billion kilowatt hours (kWh) annually, and the generation of almost 45 million tons of greenhouse gases (GHG).”

- U.S. Environmental Protection Agency

“Running the hot water faucet for 5 minutes uses about the same amount of energy as burning a 60-watt bulb for 14 hours.”

- U.S. Environmental Protection Agency
Typical Water Uses In A Healthcare Facility

[Pie chart showing water usage by category: Sanitary 42%, HVAC 23%, Medical Processes 14%, Cafeteria/Food Service 9%, Misc./Unaccounted 9%, Laundry 5%.

Source: Massachusetts Water Resources Authority]

From US DOE EERE (via MWRA)
Water Saving Information: EPA WaterSense

Commercial

Commercial and institutional users of water include a wide range of businesses and organizations. Facilities such as schools, hotels, retail stores, office buildings, and hospitals account for up to 17% of publicly supplied water use and 18% of energy use in the United States. Reducing water use by adopting and promoting water-efficient products, services, and practices in these facilities can have a great impact in helping to meet challenges faced by communities to meet water demands, save energy, and reduce stress on our natural resources. Start saving water and energy now by taking action!

- Learn more about water use in different types of commercial buildings like hotels, hospitals, office buildings, schools, and restaurants.
- Consider installing WaterSense labeled products in your building.
- Find strategies to better manage your facility’s water use through planning, metering, and leak detection.
- Explore best management practices to improve your building’s performance.
- Discover other resources to assist commercial buildings and federal facilities reduce their water use and review case studies of successful water efficiency efforts.
- Learn what ENERGY STAR has available to help buildings track water and energy use and get recognized for energy and water savings.
- Follow WaterSense as it builds its program to support commercial and institutional facilities.

ENERGIZE CONNECTICUT
Sustainable Materials Management Information
DEEP webpage: Reduce, Reuse, Recycle

"Unless someone like you cares a whole awful lot,
Nothing is going to get better. It’s not."
~ Dr. Seuss, from The Lorax

In 2010 we recycled and composted about 26% of our waste in Connecticut. That rate might seem impressive; however, it has remained relatively flat over the past decade. Connecticut still disposes of 2.4 million tons of trash annually, an estimated 1,270 pounds of trash per person per year. That’s too much! We not only can do better, we must do better by transforming solid waste management into a materials economy that can create jobs through recycling.

Learn more about how we manage our waste in Connecticut and how to help us move toward our vision for even more waste reduction, reuse and recycling, by using the navigation links on the left and in the sections below. Specific information on local recycling programs and locations is available through your municipal recycling coordinator. DEEP’s "What Do I Do With...?" webpage may help CT residents decide how to recycle or dispose of that not-so-common item.

<table>
<thead>
<tr>
<th>Learn about CT’s new Paint Recycling program.</th>
<th>Recycle your computers and TVs at these locations.</th>
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- **Waste Reduction**
- **Reuse**
- **Recycling**
- **Composting & Organics Recycling**
- **Event Recycling**
- **Electronic Waste**
- **Construction & Demolition**
- **Household Hazardous Waste**
- **Frequently Asked Questions**
- **Laws and Regulations**
Renewable Energy General Information

Smart Energy Resources

Take Action for Your Energy Future

Energy impacts our everyday lives in a million obvious and subtle ways. Our Smart Energy Resources will help you learn more about the power of energy efficiency and renewable energy. Did you know that electricity demand and Connecticut’s air quality are related? Do you know the difference between kWhs, BTUs or therms? We have information to help answer your energy-related questions.

Energy 101
Welcome to class! Learn about energy efficient technology and renewable resources to take charge of your energy future.

Energy Assistance
Need help with your energy bills? There may be a Connecticut program able to help. Visit our Energy Assistance page to learn more.

Glossary
The energy world has its own lingo. Our glossary is the place to refine and enhance your energy vocabulary.

Questions? Contact us or call 877-WISE-USE (877-947-3873).
Renewable Spotlight: Anaerobic Digestion

Harvest the Power in Your Facility

Does your commercial, industrial or institutional facility have a high power load or generate large volumes of organic matter? If so, it’s worth exploring On-Site Anaerobic Digester technologies. You could be eligible for a grant, loan or power purchase incentive to offset the cost of investing in equipment to harness the power of this clean, renewable energy technology.

Manage waste and generate renewable energy

Through the anaerobic digestion process, microorganisms break down biodegradable material in the absence of oxygen. Anaerobic digestion can serve the dual purpose of managing waste and generating renewable energy that can help replace fossil fuels.

If your facility generates large volumes of organic waste, consider applying to participate in the On-Site Anaerobic Digestion Pilot Program. The Clean Energy Finance and Investment Authority (CEFIA) will issue annual solicitations seeking applications for grants, loans or power purchase incentives to help finance the cost of anaerobic digestion equipment for energy generating projects. Projects must be in the development phase and cannot already be under-construction.

Individual awards are not a fixed amount based on size or cost and will vary based on the specific technology, efficiency and economics of the installation. However, funding will not exceed the equivalent of $450/kilowatt generated. Financial support is intended to help you achieve a fair and reasonable payback and return on investment during the life of the project compared to purchasing the equivalent amount of power from your utility.
Renewable Spotlight: Microgrids & CHP

Incentives and Loans for Combined Heat and Power Systems

Reduce operating costs with a combined heat and power system. Financial incentives and low-interest loans, sponsored by the Connecticut Department of Energy and Environmental Protection (DEEP), can make it a cost-effective investment. Capital grants of $200 per kilowatt are available for qualifying projects of one megawatt or less in CL&P or UI's service territory. To qualify, a project must reduce energy costs by an amount equal to or greater than the project's installation cost within 10 years of its installation.

Program Overview

DEEP-Sponsored Granted Financial Incentives & Low-Interest Loans

DEEP offers monetary grants and other financial incentives to help businesses develop and install combined heat and power systems to reduce operating expenses. Resources are available to support projects from scratch and those that are further along in development. This program can be an especially good companion to potential microgrid host sites that are considering developing microgrid submissions for DEEP's Microgrid Grant and Loan Pilot program. It can also help any business with an interest in developing a combined heat and power project to improve competitiveness.

Click here for more information on the DEEP Microgrid Grant and Loan Pilot program

For more information on DEEP Sponsored Granted Financial Incentives and Low-Interest Loans, contact Gail Lucchina by email at gail.lucchina@ct.gov.
Reducing Energy Enhances Human Health

- Example: Improved indoor air quality through efficient air handling equipment
  - Decreases symptoms of runny noses, sneezing, irritable throats, fatigue.
  - Improves ventilation due to lower contaminant levels in the air
  - Balanced relative humidity
  - Lower excess moisture levels, preventing mold outbreaks
Enhancing Human Health: *Indoor Air Quality*

**Indoor Environmental Quality (IEQ)**

The IEQ Unit provides consultation, technical assistance, education, and training to local health departments, housing code enforcement officials, other state agencies, health care providers, and the public regarding environmental conditions in homes, schools, and workplaces that can lead to poor IEQ and impact health.

**General Information:**
- IEQ Fact Sheet (pdf)
- Indoor Air Quality Testing Should Not Be The First Move (pdf)
- National Institute for Occupational Safety and Health (NIOSH)
- Environmental Protection Agency (EPA)
- Health Canada
- California Air Resources Board (CARB)

**Indoor Environmental Quality Topics**
- Air Fresheners
- Air Purifiers
- Asbestos
- Ascoke
- Carbon Monoxide
- Cleaning and Disinfecting Indoors
- Construction Activities
- Formaldehyde
- Flooding
- Green Living
- Hand Sanitizers
- IEQ in Homes
- IEQ in Schools
- IEQ in Workplaces
- IEQ in Day Care
- IEQ Professionals
- IEQ Newsletters
- Insulation
- Lead
- Mercury
- Mold
- MultiRalls
- Oil Spills
- Ozone
- Pest Management
- PCBs
- Radon
- Sewage
- Temperature
- Tobacco
- Vapor Instrusion
- Ventilation
- Volatile Organic Compounds (VOCs)
For More Information…

- www.EnergizeCT.com
- 1-877-WISE USE

- www.ct.gov/deep/energy
- DEEP.EnergyBureau@ct.gov

Diane Duva, Office Director
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