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NEWSLETTER FROM THE CONNECTICUT DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION

## A Resilient Connecticut

**Recent storms, like Hurricane Irene, Winter Storm Alfred, and Superstorm Sandy have exposed vulnerabilities across Connecticut. These storms had severe impacts, costing the state hundreds of millions of dollars in damages, and in some areas, leaving hundreds of thousands without power for more than a week.**

Fortunately, the newly established Connecticut Institute for Resilience and Climate Adaptation (CIRCA) is working to make the state's coastal and riverine communities more resilient to the growing impacts from climate change. CIRCA is a partnership between DEEP and the

University of Connecticut. Its scientists are conducting groundbreaking research that will help towns, cities, and property owners prepare for future sea levels, extreme storms, and flooding. CIRCA's current projects include mapping shoreline erosion and growth over the past 100 years and projecting sea level rise for different locations across the coastline.

CIRCA's future work includes providing information for municipal officials and property owners as they chart future development, re-development, and other investments. One example is the creation of a tool for towns and cities to use to assess the vulnerabilities of their critical infrastructure, like wastewater treatment plants, pump stations, roads, and public safety assets.

For more information, visit [www.circa.uconn.edu](http://www.circa.uconn.edu).



**Damage to the Cosey Beach section of East Haven from Hurricane Irene.**

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## Connecticut's Climate Leaders

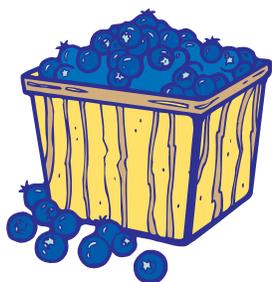
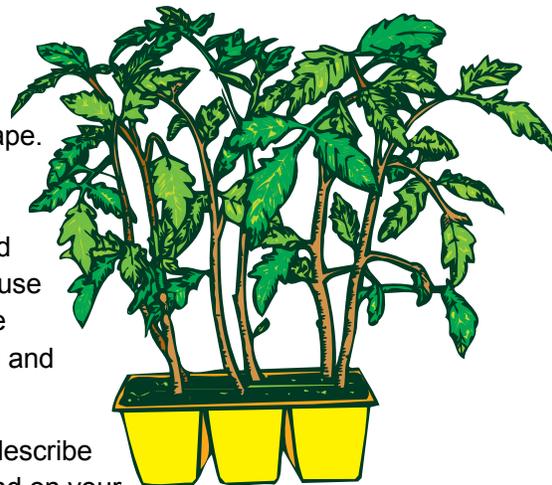
Earlier this year, U.S. EPA recognized Mayor Bill Finch of Bridgeport as a **Climate Leader** for responding to climate change and engaging his community. Bridgeport has created hundreds of green jobs, invested in a fuel cell which produces enough clean energy to power 15,000 homes annually, and has developed more than one-thousand transit-oriented apartments within walking distance to a train station.

**The Hartford** insurance company is also a Climate Leader, for the second year in a row. The company is reducing their greenhouse gas emissions through energy efficiency, green technology, decreasing travel with virtual participation and re-evaluating their real estate footprint.

## Rethink Your Lawn

If you've got a lawn, about now you're springing into action to get it into shape. Ever think about how much time and resources go into creating that carpet of grass? There's the seeding, fertilizing, watering, applying pesticides, mowing and trimming — all of which can take its toll on you, your wallet and the environment. Maybe it's time to rethink your lawn — how do you really use it and is there a better option? Reducing the size of your lawn and filling the space with food or flowers or low maintenance plants can benefit your yard and Connecticut's environment.

Front yard farming, foodscaping and edible landscaping are all terms that describe a yard that includes using beautiful plants that end up in your salad bowl and on your dinner table. Rather than creating a full blown backyard vegetable garden, you can start off small by including herbs as decorative borders and replacing shrubs with berry bushes. Cabbages, Swiss chard, lettuces and strawberries are good to start off with since they are all easy to grow, won't take up much space and can be planted early in the season. From there, you can move into tomatoes, eggplants, peppers and more. Not only will you be saving money at the grocery store, but you'll be eating food that is fresh picked and hasn't traveled for miles and days to get there. Many **free resources** are available on-line to help guide you along.



Edible gardens are a growing trend and even Michelle Obama created one a few years back at the White House. If you still aren't quite ready to dig into your lawn, try planting some vegetables in containers and once you've tasted what you've grown, you'll want to go bigger next year. Seed libraries have also started sprouting up, including two in Connecticut, at the **Bethlehem** and **Fairfield** public libraries where you can get free seeds and return some from your harvest.

There is another movement underway calling for **smaller lawns** by replacing grass with ground covers, ferns and wildflowers. Wildflowers require less maintenance, provide color to your yard and invite pollinators. Groundcovers are low-growing plants that spread and create a dense cover. These plantings are an ecological plus since they thrive without fertilizer, pesticides and mowing, reducing both water and air pollution. And, they save you time and money. Choose native varieties and avoid invasives; check out these websites for more information: **CT DEEP** and **NOFA Organic Land Care**. Before making changes to your yard, assess sunny and shady spots and **test your soil**, so you will have the greatest success. Then, dig in and grow some free time.

# Let the Sun Shine In

## Thinking about renovating or starting some new construction?

Consider incorporating a daylighting plan into your design. Simply by orienting windows and walls properly, buildings can be almost entirely lit using natural light. The sun's positive effects are nothing new but sometimes we overlook ways to soak it up indoors.

First and foremost, daylighting can offer significant energy and cost savings. By reducing artificial lighting, energy cost savings can range from 15-40%. Additionally, redirecting the natural light cuts heating and cooling costs by warming the air in the winter and preventing waste heat in the summer.

This also leads to improved occupant health, comfort and productivity. According to a [report](#) by the California Energy Commission, access to natural light in schools increases student learning rates. Sunshine causes our brains to produce serotonin, a mood boosting hormone, and can alleviate pain and stress.

There is also evidence that natural light can promote faster patient recovery time in [hospitals](#). One report showed that patients in rooms with daylight had lower stress levels, required less pain medication and were released earlier.

[Retail](#) can also enjoy some of the greatest benefits with considerable energy savings and increased sales. In a [report](#) that compared retail sites with daylighting systems and sites with only artificial lighting, the day lit sites experienced up to 40% increased sales. Natural light significantly enhances colors and the products' visual appearances and creates a very positive shopping experience for the customer.

In order to capture these benefits in your project, it is important to orient buildings correctly during design. Here in New England, north-facing windows allow for even light penetration over the course of the day and little glare or unwanted heat gain. South-facing windows also work well in the winter with the sun lower in the sky but little direct sun in the summer, especially with proper shading. This is a simple and cost-effective strategy if included in the initial design process. Daylighting can be accomplished with retrofitting but at much higher up-front costs so it is best to incorporate early on.



UConn CGSB hall before



UConn CGSB hall after

© Anton Grassi/ESTO



UConn CGSB lobby

© Anton Grassi/ESTO

One of the best local examples is the University of Connecticut's Cell and Genome Sciences Building ([CGSB](#)) renovated by the architectural firm, [Goody Clancy](#), in 2010. As one of the nation's most advanced laboratories, UConn wanted to attract the best and brightest by offering a welcoming, state-of-the-art work facility. As the scientists often work long hours indoors, it was important to give them a view outside and access to natural light. The project designers included more than 460 linear feet of skylights, lifted the roof to construct a centralized atrium and opened blank exterior walls with additional windows.

CVS in West Haven and L.L. Bean in South Windsor are two examples of retail businesses taking advantage of sunlight in the design of their stores. Eastern Connecticut State University, Connecticut College and Yale University all have campus buildings that were designed with daylighting.

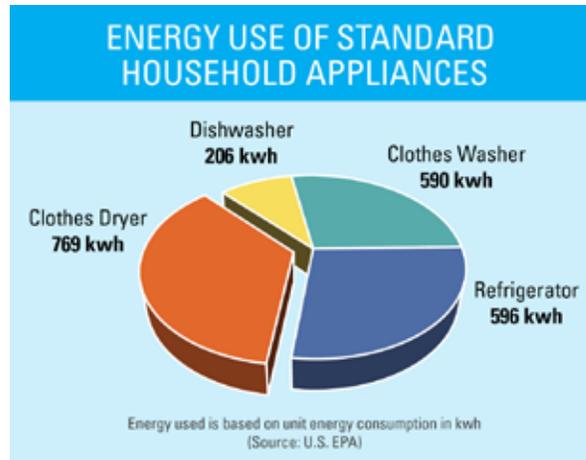
Want to let light into your construction plans? Visit the [US Green Building Council](#) and the [Whole Building Design Guide](#) for information on sustainable building.

# Ask Eartha

I am moving and in the market for a new electric clothes dryer. I'm wondering if there are any environmental features that I should be looking for when shopping for a new one? *Michael P., Sharon, CT*

Clothes dryers are the biggest energy-using appliance after the water heater — consuming about 6% of a home's total **electricity use**. And with generation of electricity comes various forms of pollution and resource degradation.

Although other appliances have received major energy efficiency upgrades over the last two decades, little had changed with dryers in the U.S. — until just recently. Now you can choose **Energy Star certified dryers**, which use innovative energy saving technologies, such as moisture sensors that detect when clothes are dry and shut the dryer off. Many Energy Star models also include convenient features, such as steam cycles that can help save time on ironing clothes by preventing wrinkles. You may also choose a longer drying cycle on a low heat setting to further reduce the amount of energy you use.



These energy savings features mean that you can subtract about 20% from your clothes drying bill if you make the switch. And if you pair your new dryer with an Energy Star washer, you can save even more. These washers remove significantly more water out of your clothes in their final spin cycle than conventional models. As a result, it takes less drying time and uses less heat in the dryer — this means energy savings and reduced wear and tear on your clothes caused by over-drying.



If you are not in the market for a new dryer yet, you can still take advantage of tips to cut the amount of energy and dollars you spend drying your clothes:

- Put the dryer in a heated space.
- Clean the lint filter after each load.
- Scrub the lint filter if you use dryer sheets — they can leave a film that reduces airflow.
- Dry towels and heavier cottons in a separate load from lighter-weight clothes.
- Dry only full loads — but don't overload.

Of course if you want to save the most energy, carbon emissions, and money, there is always that timeless clothesline!

Interested? Check out the **Energy Star models and available rebates at Energize CT.**

Eartha answers selected environmental questions. Email your question to [judith.prill@ct.gov](mailto:judith.prill@ct.gov) and watch future issues for your answer.

Protect the environment, Pick up after your Pet! [www.ct.gov/DEEP/P2](http://www.ct.gov/DEEP/P2) — Greening Cats and Dogs



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