



Green the Capitol

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# Six Months of Progress

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December 2007

Greetings:

The vision to make the Capitol more environmentally-friendly is no longer simply an initiative or an idea; real progress has been made in just six months and even more significant changes are underway.

The goal of the Green the Capitol Initiative is to make the House carbon-neutral by the end of the 110th Congress. We are purchasing wind power and converting to natural gas in the Capitol Power Plant. We have also bought carbon offsets and phased in an array of important energy-saving improvements.

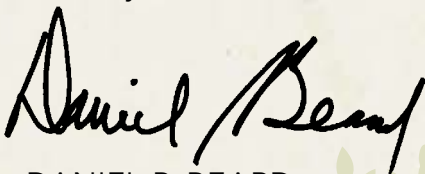
Soon, the U.S. House of Representatives will be the world's only carbon-neutral legislative body.

Operationally, the House continues to make substantive changes to reduce greenhouse gas emissions that we hope will serve as an international model of governmental responsibility on green issues — changes that appropriately complement this Congress' legislative attempts to improve energy consumption and the environment on a national level.

We continue to evaluate every aspect of House operations to make this institution more environmentally-friendly. The Green the Capitol team is continually assessing food services, transportation systems and procurement processes in an effort to use our resources wisely, save taxpayers money and improve the overall health and quality of our workplaces.

In just six months we have made significant inroads toward our goal of carbon neutrality and vastly improved energy efficiency. Based on our successes thus far, and with the help of our committed and environmentally-conscious employees, I am confident that goal is well within our grasp.

Thank you.



DANIEL P. BEARD  
Chief Administrative Officer  
U.S. House of Representatives



# Green the Capitol Accomplishments

## DONE

It is one of the most recognized symbols in American democracy: the Capitol Dome. But it is hardly an emblem of energy efficiency. The conventional lights that illuminate the outside of the structure are, in fact, good examples of outdated and wasteful technology: they use a considerable amount of electricity, need to be changed frequently and get extremely hot.

Those involved in the greening of the Capitol envision a day when the millions of visitors who journey to Washington gaze at this national treasure and know the glow they're admiring is environmentally-friendly.

This is already more than a dream.

The House has initiated a study to **relight the Dome** with more energy-efficient lighting. Engineers have begun drafting plans on the feasibility of the project and cost projections have been made. Ultimately the Dome will become more than a symbol of democracy; it will also be an emblem for environmental responsibility and a commitment to using taxpayers' money wisely.

Of course, reducing carbon emissions to address global warming has its costs and no one person, group or organization can do it alone. The House's plan to be **carbon-neutral** has been praised for its ambition and appropriate sense of urgency. To ensure that a collection of aging office buildings, and the much older Capitol, are carbon-neutral in 18 months is a Herculean challenge. Eradicating all carbon emissions in a complex that was not built with global warming in mind demands a creative solution.

That solution came in the form of the Chicago Climate Exchange. The Chicago Climate Exchange is a voluntary trading system, in which polluters offset their emissions by purchasing credits from individuals or companies involved in the reduction of greenhouse gas emissions.

In November of 2007, the House bought \$89,000 worth of credits from the exchange to offset 30,000 of the 91,000 metric tons of greenhouse gas the House complex releases each year. The House bought the offsets from U.S. sellers and then retired them.

Critics of carbon offsets worry that purchasers will buy them to justify environmental irresponsibility. We are buying offsets to *be* responsible. Global warming is just that: global. Our pollution and energy consumption are not confined to the hallways and meeting rooms of our buildings. What we do here is part of a wider problem. We have chosen to be part of the broader remedy. It's a short-term fix, but a sound one. The purchase of offsets has already made history: it will ensure that the United States House of Representatives is the **first carbon-neutral legislative body** in the world.



Someday we will buy fewer carbon offsets because the House will be acculturated to greening as a way of doing business. Getting individuals to take steps to conserve energy and use alternative transportation is a major challenge of the initiative, one that is already successful.

One example of that success came in October 2007, when more than 30 green vendors showcased alternative forms of transportation as part of the **Green the Capitol Expo**.

The expo featured more than 19 alternative fuel vehicles, Segway® personal transporters, electric motorcycles and lightweight road bicycles. Exhibitors also provided information on ride-sharing technologies, bike-to-work programs and various public transportation solutions for commuters.

The significance of this event transcended its content.

The fact that over 1,500 House employees attended marked the show's true value. The turnout underscored

an important principle of the Green the Capitol Initiative: a significant number of Capitol Hill employees understand the importance of the **greening movement** and many are already committed to doing their part to make the House of Representatives an environmentally-responsible workplace.

An example of this willingness to become involved came with the introduction of Zipcar to the Capitol complex. The **car-sharing** company's Capitol presence was rolled out at the day-long event and within hours employees were signing up for the service. One of the program's goals is to encourage employees to use Zipcars for short trips from Capitol Hill, so they won't have to drive to work.

Currently, three Toyota Prius's and a hybrid SUV make up the fleet in the Rayburn House Office Building Garage, with more expected to be added in the next phase of the program. The **fuel-efficient vehicles** use less energy, reduce carbon emissions and help relieve traffic congestion by allowing employees to take public transportation to work without worrying about how they'll get to unexpected workday appointments.

The **green benefits** of such a program are significant. More than 40 percent of Zipcar's members sell their cars or decide against purchasing a car, according to the company. Each Zipcar replaces 20 privately-owned vehicles, taking cars off the road and reducing the amount of carbon dioxide entering the atmosphere. Since the start of the pilot program, more than 156 Zipcar accounts have been opened by House employees, and that number continues to rise.

Zipcars haven't cornered the market on "zippiness." House employees are known for their zealous consumption of coffee. But this quest for caffeine comes with a different kind of wake-up call: many coffee farmers receive prices for their harvests that are less than the costs of production. These market conditions often force them into poverty, according to the human rights group Global Exchange.

The House now only serves **Fair Trade certified beans**. This accreditation assures House consumers that the coffee they drink was purchased under fair market conditions. The new food service vendor, Restaurant Associates, will serve Fair Trade brews from Pura Vida Coffee, which specializes in organic and bird-friendly, shade-grown beans.



Pura Vida's mission is to raise awareness and funding to benefit at-risk children and their families in coffee-growing countries. The availability of these products is part of the Green the Capitol effort because Fair Trade certified coffee encourages **environmental sustainability**, prohibiting the use of harmful chemicals and genetically modified organisms. Instead, these types of coffee promote farming methods that protect the health of farmers and preserve forest ecosystems.

And while many people don't think twice about the coffee they drink, the negative, long-term effects of Styrofoam® and improperly discarded plastic on the environment are widely understood. The House serves about 230,000 meals a month, many of them in containers that can take generations to break down. In a **victory for the environment**, all Styrofoam® and plastic food service items in House eateries have been replaced with biodegradable plates, utensils and packaging.



And the House is taking the next step. All food waste and biodegradable food service containers are being sent to commercial composting facilities. What was garbage yesterday is being turned today into a commercially **usable asset: compost**. This will significantly **reduce** the estimated **250 metric tons of waste** the House sends into landfills each year.

As part of that composting process, a new food pulper will extract water from the House's waste, reducing its weight by as much as 70 percent. It will also make 100 percent of the remaining materials **biodegradable**. The House, in cooperation with the U.S. Department of Agriculture, will reduce what is sent to landfills by more than 50 percent through commercial composting efforts.

The House also tightened food services requirements. It will ensure that food offered will be **organic and grown within a 150-mile radius** of the Capitol when possible. Additionally, all of the beef, chicken and pork sold will be hormone-free, and all of the seafood offered will be certified sustainable by the Monterey Bay Aquarium Seafood Watch.

What does food have to do with the environment? Providing **organic products** reduces the amount of pesticides used. By **buying locally**, transportation costs and carbon emissions are reduced because less fuel is consumed. For example, House diners will know the seafood they are eating was not farmed or caught in a harmful manner. **Sustainable seafood** refers to fish that can exist in the long-term without compromising the survival of the species, other marine life or the ecosystem.

Additionally, the House required that menus in the Members' Dining Room be printed on 100 percent recycled paper. Paper, incidentally, is another huge environmental concern on Capitol Hill. The House Office Supply Store sells about 70 million sheets of copy paper a year, contributing to tons of landfill waste. As part of the Green the Capitol plan, the store now sells only **environmentally-sound 100 percent post-consumer waste paper**.



This will **save** more than **29,000 trees**, 3.5 million gallons of water, nearly **5 billion BTUs of electricity** and 400,000 pounds of solid waste in only a year. The recycled paper will also prevent the release of nearly 775,000 pounds of greenhouse gases.

The House Office Supply Store also sells recycled toner and printer cartridges, which are often 30 percent cheaper and work just as well as new cartridges. The outlet also recycles cell phones, BlackBerry devices and batteries.

And while using 100 percent recycled paper may be an obvious green solution, replacing environmentally-unfriendly carpeting is less so. Still, the carpets that line the floors of the House emit chemicals called volatile organic compounds (VOCs). All new carpeting will emit significantly lower levels of these chemicals.

Using **low VOC materials** can significantly reduce the emission of these compounds. Additionally, elevated levels of the compounds have been linked to eye and respiratory irritation, headaches, fatigue and other symptoms associated with "sick building syndrome." Low VOC materials **improve regional air quality** and the safety and health of employees. Low VOC paint is also being used to refresh the façade in various food service venues.

The carpets will be cleaned with products containing ingredients certified by the Food and Drug Administration, meaning they are completely harmless to humans and the environment. The cleaners also meet three independent green certifications and will be used on carpeting in all public spaces.

**Heating and cooling** of those public spaces has also been made **more efficient**. The fans in House office buildings are often on when no one is in the room, so the settings were modified. This **reduced energy** use and runtimes by 14 percent.

The 84 vending machines in the House were also constantly running in non-energy saving modes. They will be imminently replaced with energy-efficient technologies. Plans are underway to do the same for office equipment, which must now meet **Energy Star® efficiency** requirements. The 2007 version of "House Standard for New Acquisitions" was also updated to encourage Members to purchase energy-efficient computers and office equipment.

These improvements have not gone unnoticed. The Secretary of the Department of Energy, Samuel Bodman, recently honored Chief Administrative Officer Daniel P. Beard at the Federal Energy and Water Management Awards Ceremony, which recognizes federal agencies that have lessened their impact on the environment through the **innovative management of resources**.



## UNDERWAY

The coal-fired Capitol Power Plant is one of the biggest polluters in the District. Legislative-branch operations — which includes the Senate — generated 316,000 metric tons of greenhouse gas emissions in fiscal 2006, according to a recently released Government Accountability Office report. The plant was responsible for 32 percent of those emissions, burning coal in the production of steam and chilled water used to heat and cool many Capitol Hill buildings.

Burning fossil fuels not only harms the environment, it sets a bad example at a time when Congress is attempting to pass energy legislation aimed at encouraging every American to be more energy-efficient.

While the House bought **carbon credits** to offset some 30,000 of the 91,000 metric tons of greenhouse gas the complex releases each year, the **Capitol Power Plant** poses a formidable obstacle to achieving carbon neutrality. This is precisely why **switching to natural gas** is an important pillar of the Green the Capitol Initiative.

**Wind power** will provide 100 percent of the House's electricity. Insisting on **renewable energy**, while not the cheapest option in the short-term, holds obvious long-term benefits. Such a changeover puts the House in a leadership position by insisting that the energy we use is not created at the expense of the environment. In the big picture, the added costs are inconsequential when you consider that these tax dollars are helping to keep our nation's air clean, lessening our dependence on energy sources that ultimately harm us all.

So it is good news that the estimated \$520,000 needed to purchase electricity from renewable sources has been set aside through legislation. It's also a very good thing that the plant's conversion from coal to natural gas for House operations will decrease the number of offsets required by 10,000 metric tons. That \$2.75 million fix is included in the House spending bill.

Existing operations in the Capitol Power Plant can also be **streamlined**; the House has identified pressure reduction tests for the steam distribution system that could save two to three percent of the overall energy used. Testing is scheduled to begin in early 2008.

Two to three percent doesn't sound like a lot, but consider that it costs over \$6 million to cool the House annually. We are looking into **activating economizers** on building air conditioners. The economizers work by introducing outside air to reduce cooling loads, cutting annual costs by up to 20 percent.

Exactly how much energy is consumed and where precisely it goes (what buildings, offices, etc.) isn't easy to track. Because of this, the House is installing a comprehensive metering system to track and report on the energy used to power Capitol buildings. The Speaker's office has already directed the Architect of the Capitol to begin the installation.

Another "bright spot" in House **greening developments** comes in the form of the **7,000 compact fluorescent lights** (CFLs) that have already been installed in House offices in 2007. Traditional incandescent light bulbs are not energy efficient — they use 75 percent more energy than fluorescents — and don't last nearly as



long as CFLs, which on average burn for 10,000 hours. The House is working to replace the remaining 30,000 incandescents with the improved CFLs, which pay for themselves in as little as five months.

The House's food services are also seeing the light. The equipment used in the various cafeterias is being revamped and modernized to be more energy-efficient. The Green the Capitol Office is currently studying over 700 pieces of food service equipment and appliances to optimize energy savings.

Users of Washington's transit and bus systems will see improvements as a result of efforts to Green the Capitol. A new pilot aims to make it easier for House employees to use their cars less. Every day, thousands of Hill employees drive to work, increasing pollution and traffic congestion. The House has established a pilot for a **"Smart Benefit" program** in conjunction with D.C.'s public transportation system that would streamline the process of acquiring government-provided transit benefits, making participation in the program far more simple and appealing.

The program, which begins on February 1, 2008, will allow employees to download their benefits online via a SmarTrip® card. Three hundred employees will be part of the pilot program, which is expected to expand House-wide.

What is not expanding is how much paper the House discards. There are efforts underway to reduce the amount of paper funneled into the waste stream by recycling it instead. At the same time, the House is **increasing electronic distribution of reports** and changing the archiving requirements to reduce the amount of paper generated.

Processors, not just paper, will also get a green evaluation. Computer servers, which are now spread out in various locations and require individual cooling systems, will be consolidated in fewer locations to **diminish energy consumption by 65 percent**.

Ultimately, the Green the Capitol Initiative is about changing the way everyone does business. No organization can go green alone, and the House is no exception. Therefore, a House-wide **"Green Team"** is being developed, through which employees from various offices will be encouraged to volunteer in support of green efforts. Volunteers will receive green educational materials and tips, be able to request environmental audits of their workplaces and enroll in training sessions on how to green their offices. Finally, they will have the opportunity to attend a lecture series featuring environmental specialists speaking on the latest trends in the green movement.

