



PRELIMINARY REPORT

Green the Capitol Initiative

SUBMITTED TO
SPEAKER NANCY PELOSI
MAJORITY LEADER STENY H. HOYER
CHAIRWOMAN JUANITA MILLENDER-MCDONALD

BY
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APRIL 19, 2007

Preliminary Report Green the Capitol Initiative

Submitted to

Speaker Nancy Pelosi
Majority Leader Steny H. Hoyer
Chairwoman Juanita Millender-McDonald

by

Daniel P. Beard, Chief Administrative Officer
April 19, 2007

Executive Summary

Background

On March 1, 2007, you directed me to develop a series of preliminary recommendations for your review to reduce the environmental impacts associated with operation of the House building complex. As noted in your letter, the House of Representatives should demonstrate leadership to the nation by providing an environmentally responsible and healthy working environment for our employees. In addition, the House complex should be a showcase for sustainability. “We cannot ask the American people to address global warming and climate change issues,” you noted, “without first carefully examining ways to reduce our own energy consumption and develop sustainable workplace practices.”

Environmental responsibility is our duty to future generations. Now is the appropriate time to act to reduce our energy consumption as well as our energy dependence. Congress should set the highest standards for environmental stewardship and sustainable energy use. To accomplish this, we will need to change the way we do business. A sustainable House Capitol complex should recognize the full environmental impact of our decisions on energy and water consumption, materials use and the quality of our workplace. By taking these steps, we not only reduce the impact of House operations on the environment, but also provide leadership by example.

As a result of your directive, I have undertaken a review of the House operating procedures with respect to energy conservation, sustainability and related matters, and I offer the following preliminary recommendations to “Green the Capitol.” A more complete set of recommendations will be forthcoming in my final report on June 30, 2007.

Carbon Footprint of the House Complex

Using figures developed by the Government Accountability Office, Lawrence Berkeley National Laboratory estimated that the operation of the House complex is responsible for approximately 91,000 tons of greenhouse gas emissions (expressed in carbon dioxide equivalents) in fiscal year 2006. This is equivalent to the annual carbon dioxide emissions of 17,200 cars. Electricity use was the largest source of emissions, accounting for 63 percent of total carbon emissions. The electricity purchased by the House (and other Legislative Branch agencies) is generated from several sources: coal (53 percent), nuclear (37 percent), natural gas (7 percent), renewables (2 percent) and fuel oil (1 percent). The Capitol Power Plant accounts for another 33 percent of House greenhouse gas emissions, primarily from the combustion of fossil fuels at the boilers to generate steam to heat the buildings. The power plant's boilers are fired using coal (for 49 percent of the output), natural gas (47 percent) and other sources. All other business-related activities (travel in owned and leased vehicles, operation of heavy machinery, release of volatile organic compounds from paint, furniture refinishing, etc.) accounted for the remainder of the House's carbon dioxide emissions (4 percent).

Recommendations

Recommendation 1: Operate the House in a Carbon Neutral Manner. Climate change and global warming are serious problems caused primarily by the introduction of carbon into the atmosphere. One way the House can begin to address this problem is to work toward undertaking our operations in a carbon neutral manner. This will mean taking steps to reduce the greenhouse gas emissions our complex creates through its operations. Global warming is an international problem, but there are steps we can take to provide leadership for solving these issues locally. The most important step is to adopt a policy of making the operations of the House carbon neutral.

Accordingly, it is recommended the House operate in a carbon neutral manner at the earliest possible date, but no later than the end of the 110th Congress. By implementing this recommendation, we will be eliminating the impact of 91,000 tons of carbon dioxide emissions annually, which is the equivalent of taking 17,200 cars off the road each year.

Recommendation 2: Shift to 100 Percent Renewable Electric Power. The purchase of electricity is the largest source of carbon dioxide emissions from the operations of the House. In order to achieve our goal of making our operations carbon neutral, my office, working with the Architect of the Capitol, should negotiate to purchase 100 percent of our electricity needs (approximately 103,000 megawatt-hours per year) from renewable sources at the earliest possible date. The cost of electric power generated from renewable sources can be up to 20 percent more than power generated from traditional sources. This increase in cost will be offset over the long run by the energy conservation actions I am recommending. By implementing this recommendation, we will eliminate 57,000 tons of the total greenhouse gas emissions annually, or the equivalent of removing 11,000 cars from the roads.

Recommendation 3: Aggressively Improve Energy Efficiency. There are a series of immediate steps House offices can take to reduce energy use. I recommend we take the following actions:

- a. Immediately convert 2,000 desk lamps in the House office buildings to compact fluorescent lamps (CFL). In addition, within six months take the steps necessary to convert the remaining 10,000 desk lamps to CFLs. Replacing 12,000 CFLs is the equivalent to removing 255 cars from the road, and it will yield a \$245,000 savings in electric power costs to the House per year.
- b. Direct the CAO and Architect of the Capitol to no longer purchase standard incandescent replacement bulbs with funds made available by the House. Standard incandescent bulbs consume four times the energy of compact fluorescents and it is time for the House to eliminate their use.
- c. Instruct the Architect to convert the overhead House ceiling lights to high efficiency lighting and controls at the earliest possible date. Such action has the potential to reduce lighting energy from these sources by as much as 50 percent. This action will eliminate 7,130 tons of greenhouse gas emissions, which is equivalent to 1,340 cars.
- d. Promote energy efficiency among the 7,000 staff of the House by making CFLs available at cost in the House office supply store. If all staff members installed just one CFL bulb for their own use, it would have a cumulative effect of removing 150 cars from the road.
- e. Direct the Architect to expand their fluorescent lamp disposal program to include the proper collection of used CFLs.

Recommendation 4: Adopt Sustainable Business Practices. Our office is a major purchaser of products and services, and we should demonstrate leadership by making purchases that promote sustainability. Therefore, I recommend the following actions:

- a. Purchase only Energy Star or Federal Energy Management Program-designated products where such designations are available. These products have been determined by the appropriate Federal agencies to be life-cycle cost effective in normal operations and will contribute significantly to reduced consumption of energy.
- b. Purchase office equipment that is certified using the Electronic Product Environmental Assessment Tool (EPEAT) system. This system helps evaluate, compare and select electronic equipment based on its environmental attributes. EPEAT certified electronic devices are low in heavy metals and high in recycled plastic content.
- c. Give priority to the purchase of climate neutral products that offset the life cycle contribution of greenhouse gas emissions. Specifically, purchase only adhesive, sealants, paints, coating, and carpets that emit very low quantities of volatile organic compounds. Volatile organic compounds are major components affecting indoor air quality and they contribute to climate change.
- d. Purchase only furnishings that contain recycled products or wood certified as sustainable by the Sustainable Forests Initiative, the Forest Stewardship Council or similar programs. Implementing this recommendation will make a small contribution toward insuring bio-diverse forests for future generations.
- e. Direct the Architect to finalize the installation of an Ethanol-85 tank, pump, and related infrastructure for the use of official vehicles within the next six months.

Recommendation 5: Continued Leadership on Sustainability Issues. It is important for Members and staff to continue to provide leadership on climate change and sustainability issues. To assist in maintaining this continuing commitment, I recommend the following actions:

- a. Hold a “Green Expo” for House offices to demonstrate the latest in green products or services available to offices from commercial vendors.
- b. Establish a sustainability education program for House employees providing guidance on how employees can make a contribution to impacting climate change and sustainability at home and in the work place.
- c. Establish a “Green Revolving Fund” where revenues received from various sources will be placed in a revolving fund to be used to undertake energy and water conservation initiatives that offset greenhouse gas emissions.

Recommendation 6: Offset to Insure Carbon Neutral Operations. It is likely that even by implementing all the recommendations outlined above, the House will not be operating in a carbon neutral manner. As a result, we will have to develop a strategy for offsetting as much as 34,000 tons of greenhouse gas emissions by either: (1) Purchasing offset credits in the domestic market, or (2) Contributing a per ton payment, based on the current domestic market, of carbon dioxide equivalents emitted by the Capitol Power Plant boilers and placing these funds in the Green Revolving Fund to be used to directly mitigate the emissions. Since the domestic offset market is in its infancy and lacks uniform standards, it is important the House carefully screen any offset purchases. Between now and June 30, I will undertake a review of possible investments and determine their acceptability. If an acceptable offset cannot be secured, depositing the offset monies in the Green Revolving Fund would provide us with an acceptable alternative.

Conclusion

The recommendations in this report are only the first step in the process of creating a Green Capitol and more sustainable House operations. The final report scheduled for release on June 30 will introduce additional recommendations and provide a framework for guiding future decisions. That framework will set benchmarks for existing energy use; establish meaningful and measurable goals for reducing energy and carbon; create timetables for implementing various changes in operating conditions; and define measures for reporting progress on a regular basis.