



Highlights of [GAO-08-917T](#), a testimony to the Committee on Rules and Administration, U.S. Senate

Why GAO Did This Study

In April 2007, GAO reported that 96 percent of the greenhouse gas emissions from the Capitol Hill Complex facilities—managed by the Architect of the Capitol (AOC)—resulted from electricity use throughout the complex and combustion of fossil fuels in the Capitol Power Plant. The report concluded that AOC and other legislative branch agencies could benefit from conducting energy audits to identify projects that would reduce greenhouse gas emissions. GAO also recommended that AOC and the other agencies establish a schedule for conducting these audits and implement selected projects as part of an overall plan that considers cost-effectiveness, the extent to which the projects reduce emissions, and funding options. AOC and the other agencies agreed with our recommendations.

This statement focuses on (1) the status of AOC's efforts to implement the recommendations in our April 2007 report and (2) opportunities for the Senate to decrease greenhouse gas emissions and associated environmental impacts. The statement is based on GAO's prior work, analysis of AOC documents, and discussions with AOC management.

To view the full product, including the scope and methodology, click on [GAO-08-917T](#). For more information, contact Terrell G. Dorn at (202) 512-6923 or dornt@gao.gov.

ARCHITECT OF THE CAPITOL

Progress in Improving Energy Efficiency and Options for Decreasing Greenhouse Gas Emissions

What GAO Found

AOC has made some progress toward implementing the recommendations in GAO's April 2007 report, but opportunities remain. For example, AOC has prioritized a list of Capitol Hill buildings that need energy audits but has not developed a schedule for conducting the audits that explains the prioritization scheme or provides information on the anticipated costs. AOC prioritized the order of energy audits based on each building's energy use and has begun conducting the first of the audits. In addition, AOC has contracted with a private firm to conduct preliminary audits of the Senate office buildings that could lead to more targeted audits and eventually identify cost-effective projects that would decrease energy use and related greenhouse gas emissions. We believe that developing a more detailed schedule for future audits that includes an explanation of the prioritization scheme and cost estimates would assist the Congress in its appropriations decisions and facilitate the completion of additional audits. With respect to our recommendation that AOC implement selected projects as part of an overall plan to reduce emissions, AOC has implemented projects to reduce energy use and related emissions, but the projects were not identified through the processes we recommended. AOC could more fully respond to our recommendation by first completing the energy audits and then evaluating the cost-effectiveness and relative merits of projects that could further decrease the demand for energy.

The Senate's options for decreasing the greenhouse gas emissions and related environmental impacts associated with its operations fall into three main categories—implementing projects to decrease the demand for electricity and steam derived from fossil fuels, adjusting the Capitol Power Plant's fuel mix, and purchasing carbon offsets or renewable electricity from external providers. Of these options, efforts to decrease the demand for energy could lead to recurring cost savings through reductions in energy expenditures while the other options may prove less cost-effective and involve recurring expenses. However, a key challenge in identifying energy-saving opportunities results from limited data on the baseline level of energy use within each Senate building. Specifically, the meters for steam and chilled water no longer function or do not provide reliable data. In addition, the buildings are not equipped with submeters for electricity that, if installed, could enhance efforts to identify sections of the buildings that consume relatively high levels of energy. AOC has purchased but not installed new chilled water meters, is evaluating options for acquiring new steam meters, and plans to install submeters by February 2009.