



United States
General Accounting Office
Washington, D.C. 20548

General Government Division

B-275026

October 16, 1996

The Honorable William L. Ensign, FAIA
Acting Architect of the Capitol

Dear Mr. Ensign:

Your September 3, 1996, letter requested our opinion of the methodology you propose to use to identify energy savings achieved under the "Shared Energy Lighting Retrofit Performance Contract for the U.S. Capitol Complex of Buildings" contract. Because the payments to the contractor will be based upon sharing in the savings accruing from the rebates and reductions in utility costs identified by the methodology, the House Committee on Appropriations directed that you work with our office to devise an appropriate audit of the annual energy costs and savings. The attachment to your letter contained the audit methodology your prospective contractor proposed.

We have considered the information attached to your letter of September 3, 1996, and see no reason to object to the basic concept of the methodology as presented. Nevertheless, we believe you will need to pay close attention to the implementation of the methodology to ensure the integrity of the data used in computing the quantities of energy saved. If the methodology is not properly implemented, the accuracy of the calculation of the savings could be adversely affected.

The proposed methodology uses a formula to determine the differences in lighting fixture energy consumption between the pre-retrofit and post-retrofit periods. The formula calculates the differences in energy consumption by type of fixture on the basis of the number of fixtures of each type and the hours of operation, to arrive at quantities of energy units saved. These quantities are converted into dollar savings using the local utility rate schedules.

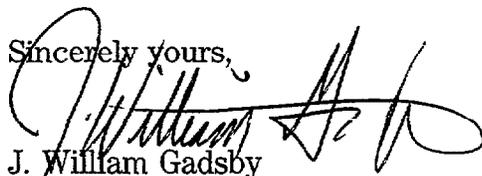
In reviewing the materials attached to your letter, we noted examples where it appeared that the data input to the formula could be refined to provide more precision. For example, the nature of congressional activities result in fluctuations in the hours of operation within and between buildings. Consequently, documenting and using the actual operating hours rather than an across-the-board standard for hours of usage, as shown in the material attached to your letter, could provide more accurate data on energy consumed during peak, shoulder, and offpeak hours.

157665

Since building usage is a key variable in the formula to be used, it will be important to monitor the collection of usage data. Use of the most precise data available should yield the best estimate of the actual energy savings resulting from the lighting retrofit program.

If you or your staff have any questions, please contact Ronald King (202-512-5248) or Thomas Johnson (202-512-5095) of my staff.

Sincerely yours,

A handwritten signature in black ink, appearing to read "J. William Gadsby", written over the typed name.

J. William Gadsby
Director, Government Business
Operations Issues

(240228)

Ordering Information

The first copy of each GAO report and testimony is free. Additional copies are \$2 each. Orders should be sent to the following address, accompanied by a check or money order made out to the Superintendent of Documents, when necessary. VISA and MasterCard credit cards are accepted, also. Orders for 100 or more copies to be mailed to a single address are discounted 25 percent.

Orders by mail:

**U.S. General Accounting Office
P.O. Box 6015
Gaithersburg, MD 20884-6015**

or visit:

**Room 1100
700 4th St. NW (corner of 4th and G Sts. NW)
U.S. General Accounting Office
Washington, DC**

**Orders may also be placed by calling (202) 512-6000
or by using fax number (301) 258-4066, or TDD (301) 413-0006.**

Each day, GAO issues a list of newly available reports and testimony. To receive facsimile copies of the daily list or any list from the past 30 days, please call (202) 512-6000 using a touchtone phone. A recorded menu will provide information on how to obtain these lists.

For information on how to access GAO reports on the INTERNET, send an e-mail message with "info" in the body to:

info@www.gao.gov

or visit GAO's World Wide Web Home Page at:

<http://www.gao.gov>

**United States
General Accounting Office
Washington, D.C. 20548-0001**

**Bulk Rate
Postage & Fees Paid
GAO
Permit No. G100**

**Official Business
Penalty for Private Use \$300**

Address Correction Requested
