icted) Released 10/19/77

03706 - [B2914157] (Restricted)

[Review of Energy Conservation by the Sovernmert]. LCD-78-102; B-146864. October 14, 1977. 1 pp. + 4 enclosures (4 pp.).

Report to Sen. Edward M. Kennedy; by Robert G. Rothwell (for Fred J. Shafer, Director, Logistics and Communications Div.).

Issue Area: Military Preparedness Flans: Military Communications and Information Processing Needs (203); Energy: Effect of Federal Efforts on Energy Conservation (1607). Contact: Logistics and Communications Div. Budget Function: National Defense: Department of Defense -Military (except procurement & contracts) (051); General Science, Space, and Technology: Telecommunications and Radio Frequency Spectrum Use (258); Natural Resources, Environment, and Energy: Energy (305). Organization Concerned: Department of Defense; Energy Research and Development Administration; Federal Energy Administration; General Services Administration. Congressional Relevance: Sen. Edward M. Kennedy.

The performance of a Government-wide review of the potential conservation of energy through the replacement of existing Government-owned and leased communications/electronics with modern, more energy-efficient equipment and facilities would be a gigantic task. Existing plant investment is in excess of \$50 billion by the Government and about \$76 billion by the American Telephone and Telegraph Company, of which a significant but undeterminable portion is used by the Government under lease arrangements. Appropriations and capital funds are not available to replace these facilities except incrementally over the very long term. Net replacement costs versus cost savings would be a principal determinant for any alternative selected. Government agencies and departments are continually planning for transition to more modern facilities and the phasing out of older and less energy-efficient facilities consistent with operating, economic, and appropriations or capital funding availability considerations and constraints. (SC)



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UNITED STATES GENERAL ACCOUNTING OFFICE

WASHINGTON, D.C. 20548

OCT 14 1977

LOGISTICS AND COMMUNICATIONS DIVISION

B-146864

The Honorable Edward M. Kennedy United States Senate

Dear Senator Kennedy:

In your letter of September 30, 1977, you requested our comments on the suggestion by your constituent that the General Accounting Office look into the conservation of energy through the replacement of existing Government-owned and leased communications/electronics with modern, more energy-efficient equipment and facilities.

We are aware of this potential. To perform such a review on a Government-wide basis, as your constituent implies, would be a gigantic task in view of the size of the existing plant investment (in excess of \$50 billion by the Government and about \$76 billion by the American Telephone and Telegraph Company - of which a significant but undeterminable portion is used by the Government under lease arrangements). Appropriations and capital funds are not available to replace these facilities except incrementally over the very long term. Obviously, net replacement costs versus cost savings is a principal determinant for any alternative selected. We know, from our work, that Government agencies and departments (and of course AT&T) are continually planning for transition to more modern facilities and the phasing out of older (also less energy-efficient) facilities consistent with operating, economic, and appropriations or capital funding availability considerations and constraints. These activities are subject to our continuing reviews; and the specific area of energy conservation will be addressed, where appropriate. We do plan to address this specific area to a limited and manageable extent as time and staff become available and priorities permit.

I hope the above comments are responsive to your request. As you requested, the enclosures to your letter of September 30, 1977, are returned herewith.

Sincerely yours,

. & Rothusel

F. J. Shafer Director

Enclosures

LCD-78-102

## Alniled Blales Senale

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Respectfully referred to:

GiO-We would Appreciate Jour comments in this-Khunks.

Because of the desire of this office to be responsive to all inquiries and communications, your consideration of the attached is requested. Your findings and views, in duplicate form, along with return of the enclosure, will be appreciated by

Sherfer M Hanned

Form #2

Attai Fran he Elroy

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4 Eubar Circle Billerica, Mass. 01821

SUBJECT: Energy Conservation.

7 Sortember 1977

Office of the Regional Manager United States Conoral Accounting Office Room 1903, John F. Kennedy Federal Building Government Centur Bouton, Massachusetts 02203

Dear Sir:

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Enclosed for your information is a copy of latter addressed to the Honorable Edward N. Kenanedy concerning the upgrading the \*GAO, " Telecommunications Report 1971, Digital Communications System " to must the requirements of concervation of energy, and to retain our national resources.

An estimated five megawatts per hour of electric power is used to provide the United States telecommunications for leased services to each federal agency for their requirements with facilities that maybe between five and forty years old: because of design, operational restrictions require high energy for operation. These systems and facilities are both government and common carrier (telephone companies) owned need upgrading to insure lower muintenance and operational costs with considerable power reduction and energy conservation applied.

During past years, I have had the good opportunity to be associated with Mr. Folcy of your Boston Office when I was at Hanscom Air Force Buse, prior to my retirement.

Sincuruly,

- Inc. Cory of Ltr. to Senator Edward M. Kennody.
- ECTE GAO Ltr. datud 2 March 1971 to CG, ESD, L.G.Hanscom Fld. Beiford, Ma. requesting support and report.

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## ENCLOSURE III

4 Eubar Circle Billerica, Nass. 01821

SUBJECT: Energy Conservation.

7 September 1977

Honorable Edward M. Kennedy United States Senate Office Building Washington, D.C. 20515

Dear Senator Konnedy:

This letter concerns energy conservation applied to the telephone systems owned 'y the federal government and the telephone companies, common carriers, with services leased to the United States. The administration of these communication services are the Department of Defense and the General Services Administration.

A draft preliminary study is being prepared to upgrade the General Accounting Offices report, " Tolecommunications, Digital Communication Systems " dated 1971 to identify areas using high energy requirements for systems operation.

A conservative estimate of power required to support all services required by the United States are telephone communication facilities owned by the government and the telephone companies, that are leased, is about five million watts per hour, eith hour per day, every day of the year.

A saving of 60 to 80 percent in energy conservation might be possible by the methods of modern technology practices and engineering for the upgrading all facilities government owned and leased from the common carriers.

Funding and adequate appropriations are required for a constructive study combined with a facility replacement program to be established to incure that the United States are provided services that most the mational energy policy requirements for the conservation of natural resources. The spir-off products are: (1) more relieable communication facilities: (2) Maintenance cost reduction; with improved leased service in the private sector by the common carriers.

Plaise advice your supporting interests and recommodulations for a program of this nature.

Sincerely,

Topy to the Boston Office of the GAO.

Forward for Divisional Control for LCAdvance Copy to: Heises Shafer, Helmer, For action Mr. Einich (anfield SPECIAL METROUTIONS LOD will co-ordinate with EHD on this request. Deter 9-30 -77 By: