

**INTERIM REPORT OF THE
ENERGY STUDY COMMISSION
TO
THE GOVERNOR
AND
THE GENERAL ASSEMBLY OF VIRGINIA**



HOUSE DOCUMENT NO. 21

**COMMONWEALTH OF VIRGINIA
DEPARTMENT OF PURCHASES AND SUPPLY
RICHMOND
1978**

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Interim Report of the

Energy Study Commission

To: The Honorable Mills E. Godwin, Jr., Governor of Virginia

and

The General Assembly of Virginia

Richmond, Virginia

January, 1978

I. INTRODUCTION

With the onset of the 'energy crisis' of 1973-1974, the nation and the Commonwealth entered a period in which adequate energy supplies were no longer assured. Demand for energy had reached dangerously high levels in that the nation was heavily dependent upon foreign energy sources. Critical examination of national and statewide energy policies was of paramount importance.

The General Assembly of Virginia Acted to meet the problem by creating the Commission to study the Energy Crisis pursuant to S.J.R. No. 128 in 1973:

SENATE JOINT RESOLUTION NO. 128

Creating a commission to study the energy crises in the Commonwealth.

WHEREAS, a conflict exists between the Commonwealth's increasing demand for energy to further economic growth and maintain a high standard of living, and its ability to provide that energy; and

WHEREAS, such conflict affects not only the Commonwealth, but also the nation, and has been termed an energy crisis; and

WHEREAS, the elements of this crisis consist of a decreasing supply of fuels, an increasing demand for the energy created by these fuels, and an increasing cost to acquire them; and

WHEREAS, ways must be found to meet the increasing demand for energy-producing fuel without sacrificing our natural environment; now, therefore, be it

RESOLVED by the Senate, the House of Delegates concurring, That there is hereby created the Commission to Study the Energy Crises in the Commonwealth, hereinafter referred to as the Commission. The Commission shall study dimensions and consequences of the energy crises by conducting a study of the existing and future demands for energy-producing fuels in the Commonwealth, the amounts and types of needed fuel supplies that will be available, the likely cost to the future consumers of energy in Virginia, and the environmental consequences of extracting and utilizing such fuels.

The Commission shall be composed of eleven members five to be appointed by the Speaker of the House of Delegates from the membership thereof, three to be appointed by the Committee on Privileges and Elections of the Senate from the membership of the Senate and three to be appointed by the Governor from the State at large.

Members of the Commission shall serve without compensation but shall be reimbursed for the expenses incurred by them in the performance of their duties in the work of the Commission, for which, and for such other expenses as may be required, including secretarial and other professional assistance, there is hereby appropriated from the contingent fund of the General Assembly the sum of fifty thousand dollars.

The Commission shall submit to the General Assembly an interim report no later than November one, nineteen hundred seventy-three, and a final report no later than November one, nineteen hundred seventy-four, of its findings along with recommendations to be considered in establishing an energy policy for the Commonwealth designed to meet the energy crises.

In the course of their study, the Commission realized that the search for new and expanded sources of energy and the development and production of these sources was simply not keeping pace with the growing consumption. This mismatch in supply and demand and all its related problems threatened to be long term in duration. The energy problem warranted continued research and examination.

Therefore, the Commission, in addition to submitting legislation on conservation of existing energy supplies and development of new recovery means for existing natural resources, recommended in 1975 that the Commission's study be continued, that their name be changed to the Energy Study Commission and that their focus be shifted to the formulation of long range energy objectives for the State of Virginia. The directives were set out in S.J.R. No. 97 as passed by the 1975 General Assembly.

SENATE JOINT RESOLUTION NO. 97

Continuing the Commission to study the energy problems of the Commonwealth.

WHEREAS, the Commonwealth and the nation experienced an energy crisis in the winter of 1973-1974; and

WHEREAS, this crisis precipitated a study that was set out in Senate Joint Resolution No. 128 by the General Assembly in 1973 which led to an interim report (SD #6, 1974) and a final report (January 1975) by the Energy Crisis Study Commission; and

WHEREAS, the energy crisis has become an energy problem predicted to be of long-term duration; and

WHEREAS, although the Commission worked diligently, work remains to be done; now, therefore, be it

RESOLVED by the Senate, the House of Delegates concurring, That the Commission to Study the Energy Crisis in the Commonwealth is hereby continued and renamed the Energy Study Commission. The Commission shall study ways in which the State can take action on energy problems, including specific suggestions and legislative recommendations on the State setting the example for increasing energy supply and decreasing energy demand, requesting and encouraging voluntary conservation, requesting or requiring localities to enact energy and conservation measures, and State energy conservation measures. Along with the recommendations the Commission shall submit means for implementation and note expected benefits.

The present eleven members of the Commission shall continue to serve, and the Commission shall be increased to fourteen members, five appointed by the Speaker of the House of Delegates from the membership thereof, three appointed by the Committee on Privileges and Elections of the Senate from the membership of the Senate and six appointed by the Governor, to include: one from an established Virginia environmental group; one from Virginia industry; two from local government, including one from a rural area and one from an urban area of the State; and two from the State at large. If a vacancy occurs for any reason, the appropriate above named person or persons shall appoint a successor.

Members of the Commission shall serve without compensation but shall be reimbursed for the expenses incurred by them in the performance of their duties in the work of the Commission. For such other expenses as may be required, including secretarial and other professional assistance, the balance of the funds previously allocated to the Commission from the contingent fund of the General Assembly are hereby reallocated for the purposes of this study. All State agencies shall assist the Commission in its work.

The Commission shall submit to the Governor and the General Assembly an interim report no later than November one, nineteen hundred seventy-five, and a final report no later than November one, nineteen hundred seventy-six of its findings along with recommendations to be considered in establishing an energy policy for the Commonwealth designed to meet the energy problem.

The General Assembly realized that the nation and the Commonwealth faced long term energy problems. Therefore, the Energy Commission study

was continued. The directives were set out in H.J.R. No. 296 as passed by the 1977 General Assembly.

HOUSE JOINT RESOLUTION NO. 296

WHEREAS, the Commonwealth and the nation experienced an energy crisis in the winter of 1973-1974; and

WHEREAS, the General Assembly created the Commission to Study the Energy Crisis in the Commonwealth pursuant to Senate Joint Resolution No. 128 in 1973; and

WHEREAS, the Commission to Study the Energy Crisis in the Commonwealth was continued and renamed the Energy Study Commission pursuant to Senate Joint Resolution No. 97 by the 1975 General Assembly; and

WHEREAS, the Energy Study Commission has recommended to the Governor and the General Assembly in its 1976 report that the responsibility for the study, administration and implementation of Statewide energy programs be consolidated in one centralized authority; and

WHEREAS, the General Assembly and the public need to be apprised of the constantly changing energy picture in the Commonwealth and the nation; and

WHEREAS, although the Commission worked diligently and completed its legislative mandate, work remains to be done; now, therefore, be it

RESOLVED by the House of Delegates, the Senate concurring, That the Energy Study Commission is hereby continued. The Commission shall continue to apprise the Governor, the General Assembly and the public of the changing State and national energy situation and make such recommendations as the Commission deems advisable to alleviate present and future energy problems.

The Commission shall also review and study present energy programs being conducted by various State agencies with the ultimate goal of developing legislation which would create a single, unified energy agency which would be capable of administering and implementing State and federal energy programs.

The present fourteen members shall continue to serve on the Commission. If a vacancy occurs for any reason, successors shall be appointed by the appropriate person or persons pursuant to the method of appointment specified in Senate Joint Resolution No. 97 of the 1975 General Assembly.

Members of the Commission shall serve without compensation but shall be reimbursed for the expenses incurred by them in the performance of their duties in the work of the Commission. For such other expenses as

may be required, including secretarial and other professional assistance, the balance of the funds previously allocated to the Commission from the contingent fund of the General Assembly are hereby allocated for the purposes of this study. All State agencies shall assist the Commission in its work.

The Commission shall submit to the Governor and the General Assembly an interim report no later than October one, nineteen hundred seventy-seven, and a final report no later than October one, nineteen hundred seventy-eight, of its findings along with specific recommendations and legislation, if any.

II. ORGANIZATION AND WORK OF THE COMMISSION

The members of the present Commission who have served since 1973 are: C. Don Dunford, Delegate from Tazewell; Claiborne D. Gregory, representative of Virginia Petroleum Industries; George W. Jones, Delegate from Bon Air; Glenn B. McClanan, Delegate from Virginia Beach; John L. Melnick, Delegate from Arlington; Lewis W. Parker, Jr., Delegate from South Hill; Stanley Ragone, representative of VEPCO; Eugene M. Scheel, Environmentalist. Present members appointed to serve on the Commission in subsequent years are: Charles J. Colgan, Senator from Manassas; Virgil H. Goode, Jr., Senator from Rocky Mount; W. S. Kerr, Commonwealth's Attorney from Appomattox; Madison E. Marye, Senator from Shawsville; Frank T. Sutton, III, representative of the CNG Transmission Company. The members elected Delegate Dunford to serve as the Chairman in 1976.

In the first two years of its existence, the Commission directed its attention primarily to energy conservation and to those aspects of the energy crisis relating to fossil fuels. Summaries of the findings of the Commission during its first two years can be found in Senate Document No. 6 (1974) and Senate Document No. 23 (1975).

Throughout 1975, The Commission focused on solar energy and its potential and future in the Commonwealth. Details of their activities and conclusions can be found in Senate Document No. 22 (1975).

During 1976, the Commission turned its attention to the overall energy situation on the State and national level with the intention of determining a sound and cohesive Statewide energy program for the Commonwealth. The activities and recommendations of the Commission are detailed in Senate Document No. 12 (1977).

In the past year, the Commission continued to focus on the overall energy situation of the Commonwealth and the nation.

Commission members received testimony from State officials on energy conservation codes and solar energy standards, public education in energy conservation, the fuel situation in Virginia, utility participation in energy programs, and outer continental shelf developments. The Commission also listened to testimony from an official of the Energy Research and Development Administration (ERDA) on the nature of the United States energy program, and on the details of the National Energy Plan of the Carter administration.

The Illinois Comprehensive Solar Energy Act of 1977 was examined as a possible model for a Virginia solar energy program.

III. MAJOR FINDINGS OF THE COMMISSION

A. Energy in Virginia

As the nation prepares for the winter of 1977-1978, Virginia appears to have abundant energy supplies to meet any abnormally harsh weather conditions. The Commission finds that there are more than adequate supplies of oil, coal, propane, natural gas, and electricity to see the Commonwealth through the winter. Thus far the winter of 1977-1978 has been twelve percent warmer than average. Long range weather projections for the State indicate normal winter weather conditions with exceptions in eastern and extreme western portions of the Commonwealth. Warmer-than-average temperatures should prevail in eastern Virginia, while cooler than average temperatures should prevail in the western most parts of Virginia. Should colder temperatures occur in western Virginia, the overall impact would not be severe due to the lower population density in that area.

No energy shortages are anticipated for Virginia this winter unless the coal strike continues for several months. Energy supplies are sufficient to withstand an 18% colder-than-average winter. Because the Commonwealth has experienced warmer-than-average temperatures through mid-December, the prospects for winter energy sufficiency are quite good.

The Commission finds that last winter's energy shortages occurred even though adequate energy supplies existed. A shortage situation developed because of petroleum transportation problems. Petroleum is used to generate 44% of Virginia's electricity, and petroleum deliveries were curtailed when major rivers froze. Had there not been an "early spring," serious shortages could have developed.

The transportation problem should not be a factor this winter. The State Energy Office reports four to six million gallons of petroleum reserves available should shortages occur. Transportation difficulties can be handled by implementation of the V.E.O. Interim Plan for the Emergency Management of Energy Resources. The plan, produced in December 1977, will coordinate energy production, allocation, and transportation in emergency situations.

B. Insulation Standards in Housing

The U.S. Department of Housing and Urban Development reports that Americans use nearly 223 million barrels of oil in home heating each year. If every home were adequately insulated, the amount of energy saved would equal about 1/3 of U.S. annual oil imports.

The Commission finds that provisions enacted by the General Assembly ensure adequate insulation standards for Virginia housing. The One and Two Family Dwelling Code of 1975 provides insulation standards measured in Resistance to Heat Loss Values (R-Values) as follows: ceilings R-19, external walls R-11, floors over crawl spaces with electric heat and air conditioning R-11, floors over crawl spaces without electric heat or air

conditioning R-7. The R-Value shows how much resistance insulation presents to heat flowing through it. These insulation standards help lessen heating costs for consumers, and make significant contributions to energy conservation.

The BOCA Basic Energy Conservation Code of 1977 provides insulation standards for all buildings other than one and two family dwellings. The Commission finds these standards to be equal to the task of energy conservation.

IV. ACTIONS UPON COMMISSION RECOMMENDATIONS

As a result of its meetings and research the Commission offered a number of recommendations in the 1976 report. The Commission finds that three of these recommendations have been acted upon by the General Assembly, the Governor, and executive agencies:

1. That an effective public information program be launched throughout the State to inform citizens, commerce and industry of the wisdom and necessity of energy conservation.

Another "energy crisis" remains a possibility and thus poses a serious threat to the nation and the Commonwealth. All citizens must be made aware of this possibility and the necessity of incorporating conservation practices into their daily lives. The Virginia Energy Office has specifically addressed this problem with two primary programs: the Energy Conservation and Information Center (hereafter referred to as EC and IC), and the Energy Information Network (hereafter referred to as EIN). The EC and IC maintains an extensive and up-to-date collection of energy studies, surveys, and technical reports. EC and IC serves as an energy clearinghouse, referring Virginians to sources of aid and information. The EC and IC also develops and coordinates energy conservation programs for individuals, industry, and government. The EIN opens channels for easy communication between the public and government officials, and other key factors in the energy information process. The EIN also issues a monthly newsletter, reports on conservation developments, and reports on energy consumption.

2. That an active energy conservation program be developed for the Commonwealth.

The Commission recognizes that decreased demand will reduce the energy problem. The Federal Energy Policy and Conservation Act authorizes Federal funds to states willing to participate in a voluntary State-Federal undertaking to reduce State energy demand by five percent by 1980.

The Virginia Energy Office has undertaken this task by creating the Virginia Energy Management and Conservation Plan. The plan calls for a number of special seminars for business and industry in addition to more than 200 Home Energy Cost-Cutting clinics throughout the State. A number of these seminars have already been held with good participation by the public. The Energy Office analyzes energy use in State government, and promotes improved energy use in public school facilities.

3. That solar research and development activities be encouraged and that incentives for individuals and businesses be studied to promote their investment in solar units.

The General Assembly has responded to the need exploring the possibilities of solar energy by enacting House Bill No. 1451 in 1977. It is set out as follows:

HOUSE BILL NO. 1451

1. Solar Energy Center.—The Virginia Solar Energy Center is hereby created and constituted as a part of the Virginia Energy Office, an executive agency of the Commonwealth of Virginia. The purposes of the Center are: (i) to serve the people of the Commonwealth as a clearing house to gather, maintain and disseminate general and technical information on solar energy and its utilization; (ii) to coordinate programs for solar energy data-gathering in Virginia; (iii) to coordinate efforts and programs on solar energy with other State agencies and institutions, other states and federal agencies; (iv) to promote cooperation among and between Virginia business, industry, agriculture and the public related to the use of solar energy; (v) to develop public education programs on solar energy for use in schools and by the public; and (vi) to provide assistance in formulating policies on the utilization of solar energy that would be in the best interest of the Commonwealth.

The intent of the General Assembly is to provide an organization for the purposes set out in this act and to receive non-State funds for such purposes.

V. PLANS FOR 1978

The Commission plans to continue its review of the energy situation in Virginia and throughout the nation in 1978 in accordance with the directives of House Joint Resolution No. 296 as passed by the 1977 Session of the General Assembly. The Commission will continue its efforts to develop appropriate recommendations in dealing with the energy situation.

Respectfully submitted,

C. Don Dunford, Chairman

Charles J. Colgan

Virgil H. Goode, Jr.

Claiborne D. Gregory

George W. Jones

W. S. Kerr

Madison E. Marye

Glenn B. McClanan

John L. Melnick

Lewis W. Parker, Jr.

Stanley Ragone

Eugene M. Scheel

Frank T. Sutton, III

COMMENTS

UPON AND DISSENTS AS TO PORTIONS OF

THE INTERIM REPORT OF

THE ENERGY STUDY COMMISSION

SENATOR VIRGIL H. GOODE, JR.

In my opinion the use of energy for home heating could be greatly curtailed with an emphasis on the use of wood burning stoves, solar energy and other such alternative energy sources. In western Virginia the use of wood stoves has already cut down on the use of home heating fuel and electricity. The Virginia Energy Office and the Energy Study Commission need to make the public more aware of this independent source of home heating. Furthermore, the Energy Cost-Cutting clinics, while providing some good information, should have covered areas such as wood stoves and solar hot water heaters, both of which are real energy savers. These areas were ignored in the clinics, and the material centered too much on insulation.

I also object to the assertion that no energy shortages are anticipated for Virginia this winter unless the coal strike continues for several months. The Commission never received any evidence on this point.

In short, I believe that Virginia and the nation need to emphasize the non-monopolized energy sources, such as the sun and wood, far more than they have been in the past.

