

REPORT OF THE

**Virginia Coal  
and  
Energy Commission**

TO THE GOVERNOR AND  
THE GENERAL ASSEMBLY OF VIRGINIA



**Senate Document No. 13**

COMMONWEALTH OF VIRGINIA  
RICHMOND  
1984



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**STAFF**

**Bernard J. Caton, Ph.D., Research Associate**

**Michael D. Ward, Staff Attorney**

**Mary R. Spain, Staff Attorney**

**Mary Elizabeth Cosler, Secretary**

**Report of the**  
**Virginia Coal and Energy Commission**  
**To**  
**The Governor and the General Assembly of Virginia**  
**Richmond, Virginia**  
**January, 1984**

To: Honorable Charles S. Robb, Governor of Virginia  
and  
The General Assembly of Virginia

**I. INTRODUCTION**

The Virginia Coal and Energy Commission was established as a permanent agency of the Commonwealth in 1979. Since that time, it has sought in a number of ways to carry out its charge to "study all aspects of coal as an energy resource and... to stimulate, encourage, promote, and assist in the development of renewable energy resources..." (§ 9-145.1 of the Code of Virginia). This document is submitted as the Commission's report on its 1983 activities.

**II. MEMBERSHIP**

A complete list of Commission members can be found inside the cover of this report. The Commission would like to use this opportunity to acknowledge the departure of some individuals from the Commission, as well as the addition of new members.

Joseph A. Johnson and W. Ward Teel, who had served ably as chairman and vice chairman of the Commission, retired early in 1983. Also leaving after several years of valuable service were Harold K. Anderson, Herbert H. Bateman, Frederick C. Boucher, Eugene F. Brady, J. Richard Lucas, Fred D. Rosi, Frank T. Sutton, and Fred W. Walker. The Commission is certain that these individuals will continue in other ways to offer their valuable service to the Commonwealth.

The Commission was fortunate to have five new members join it: Senator Frank Nolen, Delegate Alson H. Smith, Jr., Cynthia Dahlin, Jerry Duane, and Everard Munsey.

Daniel W. Bird, Jr. and A. Victor Thomas were elected during 1983 as the Commission's chairman and vice chairman, respectively.

**III. SUBCOMMITTEE REPORTS**

Since most issues are studied carefully in standing subcommittees before presentation to the Commission for its consideration, reports of each of these Subcommittees are set out below. Members are listed for each subcommittee, with the chairman's name first. The Commission's chairman and vice chairman serve ex officio as members of all subcommittees.

**A. Renewable Energy (Goode, Colgan, Funsten, Jones, Nolen, and McClanan)**

The Renewable Energy Subcommittee has as its functions the identification of reasonable statutory changes that would help promote the use of renewable energy sources, the encouragement of the use of these resources by state agencies and institutions, and the dissemination of information on renewable energy sources to the citizens of the Commonwealth. This year, the Subcommittee's work has involved each of these functions.

The energy sources studied this year were wood, fuel alcohol, solar, and hydroelectric. The Subcommittee's main interest in wood was to review the way sawdust, logging residue, and

low-grade hardwood can be used in place of oil for heating purposes. These are wood resources that the State is rich in, and that go unused in large part.

The Subcommittee was acquainted with a project just completed by Longwood College in which it converted two of its boilers so that they can utilize wood, coal, or #6 oil. The cost of the conversion, \$241,000, is expected to be paid back over a sixteen month period. The college plans to use 12,000 tons of wood chips to replace 650,000 gallons of oil annually; the wood chips are purchased locally. Besides saving money, the use of wood will reduce air pollution and help the local economy. The Subcommittee is considering a visit to the Longwood facilities as a part of its 1984 plans.

The Subcommittee also received an update this year on the status of the fuel alcohol program in Virginia. Currently, twenty-two permittees are licensed in Virginia to produce fuel alcohol. Five of these are in operation, producing among them an average of 400,000 gallons of anhydrous alcohol. The main fuel source for these five plants is wood.

Eight hydrous farm plants are also in operation. These vary in size, but all produce less than 50,000 gallons of alcohol fuel a year. Some of these plants operate regularly, some intermittently throughout the year. The alcohol produced in these plants is primarily for on-farm use. Of the remaining permittees, two have plants under construction, two have financing assured, and five are in various pre-construction phases.

Fuel alcohol has become an important energy source for Virginians. In December, 1981, 34,000 gallons of fuel ethanol was sold in Virginia. When mixed with gasoline, this resulted in 340,000 gallons of blended fuel. By July of this year, 519,000 gallons of fuel alcohol, or 5.2 million gallons of blended fuel, were sold.

Another matter reviewed by the Subcommittee this year pertained to energy tax credits. During the 1982 Session, the General Assembly enacted a tax credit which is available to those who make certain renewable energy source expenditures. The Code provides for credits on expenditures made from 1983 to 1987. The enabling legislation calls on the Commission to assess the effect of this credit on the use of renewable sources, and recommend whether it should be continued past 1987. This Subcommittee has been requested by the Commission to oversee this assessment.

The renewable energy tax credit is especially helpful to those who wish to install solar energy equipment. Anxious to see if this credit has encouraged the use of this technology, a representative of Reynolds Aluminum Buildings Products Company met with the Subcommittee. During all of 1982, he said, Reynolds sold seventy solar hot water systems in Virginia. During the first nine months of 1983, with the credit in effect, sales increased to 420 units. Based on this record Reynolds moved an office which promotes these sales from Rockville, Maryland, to Fairfax, Virginia. The Subcommittee was advised that more publicity on the solar tax credit would be helpful. Since the available credit decreases each year, consumers need to be encouraged to use it now. The Subcommittee plans to work with the Department of Taxation and the Energy Division to see what can be done in this regard.

The final issue which the Subcommittee reviewed this year concerned the use of levelized, long-term rates for producers of small-scale hydroelectric power. A "levelized, long-term rate" is the same as the average rate that a utility like VEPCO would pay a small power producer when the utility buys his power over a long period of time (that is, usually in excess of five years). Small power producers argue that they need this rate guaranteed over a number of years in order to get bank loans for their project needs.

The Commission staff, at the direction of the Subcommittee, met with representatives of the small power producers, the electric utilities, and the State Corporation Commission (SCC) to see if agreement on this point could be reached. Although total agreement was not reached, the Subcommittee believes, and the Commission concurs, that the following recommendation is a reasonable approach:

- 1) Public utilities should be encouraged to offer long-term, levelized rates;
- 2) The SCC should work with these utilities and small hydro power producers to foster the

development of small-scale hydro power and the use of these rates.

The Commission and this Subcommittee would hope that the public utilities and small scale hydro producers will reach agreement by following this approach. Should consensus be unreachable, the Subcommittee will consider recommending legislation.

**B. Oil and Gas (Parker, Ayers, Buchanan, Carter, McClanan, Quillen, Smith)**

The Oil and Gas Subcommittee had no issues referred to it for study during 1983.

**C. Energy Preparedness (Almand, Ayers, Colgan, Duane, Munsey, Parker)**

In 1981, this Subcommittee was asked to oversee the development of an energy policy for the Commonwealth. Throughout 1982, the Subcommittee worked on this matter, assisted by individuals from the Governor's Office, the State Energy Office, the Division of Mineral Resources, the Fuel Conversion Authority, the State Corporation Commission, and VPI & SU. In January of 1983, it presented the Commission with an interim report. This report, entitled "Energy Issues for Virginia," sought to identify and analyze the major energy issues facing the Commonwealth. The Subcommittee proposed to complete its work on the development of this policy by:

1. Requesting several executive agencies to study three specific energy-related issues;
2. Developing recommendations for the state's administrative organization for energy matters;  
and
3. Finalizing the interim report by translating its findings and recommendations into a legislative proposal.

With the Commission's concurrence, the Subcommittee followed this approach.

The agency studies, undertaken pursuant to House Joint Resolution Nos. 27, 28, and 29 (1983), were completed and reports were forwarded to the Commission.

House Joint Resolution No. 27 directed the Department of Social Services to study weatherization and fuel assistance programs for low income citizens.

House Joint Resolution No. 28 requested the Department of General Services to oversee a study in which opportunities for containing energy costs in state facilities were identified.

House Joint Resolution No. 29 requested the Board of Housing and Community Development to study existing and potential requirements of the Building Code which seek to promote energy conservation.

The Subcommittee incorporated the following specific recommendations, based on the agency studies, into the revised Energy Issues document:

1. The Commonwealth has the obligation to assist its low income and elderly residents to meet their energy needs. Because of the limited resources available to meet those needs, Virginia government should adopt a policy which seeks to increase the energy efficiency of the low income housing stock. Although it appears that weatherization presents the most effective strategy for meeting this objective, an effort must be made to continually assess the impact that weatherization activities have on the housing stock. This approach is necessary in order to determine the level of funding which will ensure ongoing progress in upgrading the energy efficiency of low income residences while at the same time meeting the fuel needs of low income citizens. The Commonwealth should also actively promote such energy oriented programs as public education and low or no interest energy conservation loans. Programs such as community development grants, which have in the past been restricted to structural rehabilitation of residences of low and moderate income Virginians, should be promoted as sources of energy conservation funds for low and moderate income households.
2. The Commonwealth should commit itself to a more vigorous effort to control energy

costs in state facilities. If successful, such an effort could yield savings from projected costs as large as \$8 million per year for a program cost as low as \$700,000, with little or no increase in capital expenditures. Savings as large as \$16 million per year might be possible with additional capital expenditures.

3. The State should use the Uniform Statewide Building Code to reduce the possibility that minor reductions in construction costs will be achieved at the price of burdening occupants or owners with high energy usage and operating costs for the lives of their structures. The Commonwealth should also continue its policy of adopting a national model building code such as the BOCA Code, as the basis for its Building Code. Representatives of the Commonwealth should participate in the development of the energy conservation features of any codes likely to be accepted by the Board of Housing and Community Development, and should work toward the goal of energy conservation standards which minimize the total cost of building ownership. The BOCA Code should continue to be considered a minimum standard and the use of voluntary standards and educational programs for designers, builders, and prospective owners of new buildings should be encouraged. Voluntary rating systems for the energy efficiency of buildings should also be encouraged.

These and other recommendations can be found in the Executive Summary of the "Energy Issues in Virginia" report; a copy of this summary is attached as Appendix A.

With respect to the administrative organization responsible for state energy interests, the Subcommittee found that there is a need for coordination of the energy related activities of state government and of energy policy development. Regardless of the organizational framework in which agencies with energy related functions are placed, coordination will be desirable to ensure that an agency which makes a decision with an important energy component has access to the information and views of other interested agencies .

It will also be desirable to designate an organization which will serve, through the appropriate agency head and cabinet officer, as the Governor's advisor on energy matters and bring energy issues before the General Assembly by means of the Coal and Energy Commission. This designated organization should, in addition, be assigned responsibility for coordinating the timely formulation of recommendations for Virginia's position on national energy issues. These findings are fully in accord with the views of the Governor, which are set forth in a letter to Delegate Almand (see Appendix B).

Draft legislation to deal with this need for coordination of activities and of policy development by assigning responsibility for the required functions to the Energy Division of the Office of Emergency and Energy Services has been prepared, and is included as Appendix C.

Since so many agencies have energy concerns, there are several possible locations in state government for what is now the Energy Division of the Office of Emergency and Energy Services and for its proposed new function of coordination of energy activities. Several of these possible locations are, however, likely to be affected by the reorganization of state agencies which may be mandated by the General Assembly in response to recommendations of the Governor or the Joint Legislative Audit and Review Commission. Accordingly, the Subcommittee recommended that the Commission endorse the concept of a lead agency approach, but remain open to any proposals for the location of an Energy Division within the Executive Branch.

Some Commission members were concerned that creation of an Energy Division might involve a new expenditure of state funds. The Commission was advised by letter that this would not occur (see Appendix D).

#### D. Coal (Quillen, Buchanan, Carter, Dahlin, McGlothlin, Wolfe)

The thrust of the Coal Subcommittee's work this past year was to begin identifying ways to increase the production and use of Virginia coal. Since a separate subcommittee outside the Commission was looking into the coal slurry pipeline issue, the Coal Subcommittee confined its attention to other matters.

The Subcommittee made site visits to United Coal Company in Bristol, Virginia, and Tennessee Eastman in Kingsport, Tennessee. At United Coal, the Subcommittee was given an



explanation and demonstration of technology that is being developed there to convert coal to a liquid, more marketable form. The approach involves the pulverization of coal, followed by its mixture with water and very small amounts of other chemicals. A demonstration of this process was given to the Subcommittee. The mixture resulting from this can be moved and used much the same as No. 6 fuel oil.

A representative of Atlantic Research Corporation also reviewed for the Subcommittee a process his company is using to produce a coal-water mixture. Both United Coal and Atlantic Research have begun testing their products.

Another technology reviewed by the Subcommittee useful for coal is the gasification of coal to produce methanol and other useful chemicals. This process was explained at the Tennessee Eastman plant, and tours were given of these facilities.

The Subcommittee also solicited suggestions on ways to improve the production and use of Virginia coal from the public at large. As a result of their suggestions, the Subcommittee presented to the Commission three resolutions for its consideration.

The first of these takes note of the fact that some individuals have in the past proposed, and indeed even now are discussing, the enactment of a statewide severance tax on coal. The resolution calls for the Commission to oppose such a tax.

The second resolution requests the Secretary of Commerce and Resources to review all regulations pertaining to coal mining. The Secretary is requested to identify regulations which are duplicative and report back to the full Commission by January 1, 1985.

The final resolution proposed by this Subcommittee concerns acid rain. The Subcommittee recommends that the Commission memorialize Congress to (i) ensure that standards (if any) adopted to abate acid rain be designed to allow maximum flexibility in the use of technology, and (ii) encourage research and development into the causes and remedies of acid rain.

#### E. Uranium (Councill, Funsten, Nolen, Smith, Wolfe)

The Uranium Subcommittee bases its report primarily on the work of the Uranium Administrative Group (UAG). The UAG was established pursuant to Senate Bill No. 155, enacted during the 1983 General Assembly Session. This legislation called for site specific studies to be undertaken with respect to one or more proposed uranium development sites. The UAG was made up of six agency directors: Richard N. Burton (State Water Control Board), S. Mason Carbaugh (Department of Agriculture and Consumer Services), P. Scott Eubanks (Division of Industrial Development), James B. Kenley (Department of Health), William R. Meyer (State Air Pollution Control Board), and Fred W. Walker (Department of Conservation and Economic Development); Keith Buttleman, representing the Council on the Environment; Claude Swanson, representing Pittsylvania County; Frank Wallwork, representing Halifax County; and at-large citizen representatives Watkins Abbitt, Jr., Elizabeth Haskell, Gerald P. McCarthy, and Richard A. Wolfe. Delegate J. Paul Councill chaired the UAG.

The UAG met a number of times during the year to carry out its responsibilities. It was assisted in its work by a number of state agency employees. These individuals served the UAG well and did exemplary work for which the UAG was very appreciative. On a regular basis, they worked in excess of a normal schedule to complete their assignments.

In October of 1983, the UAG was furnished with the site specific studies called for under Senate Bill No. 155. An evaluation of these was begun immediately, with the assistance of outside consultants and state agency personnel. As was the case with all UAG documents, these studies were made available to twenty-eight libraries and local government offices so that the public might go to these depositories and review them.

The UAG consultants reported back one month later with a written analysis of the studies; copies of this report were provided to members of the Commission. Other analyses of portions of the Marline/Union Carbide studies were provided by researchers at Virginia Polytechnic Institute & State University, University of Virginia, and the consulting firm of CH2M Hill.

By and large, these evaluations suggested that further studies are needed prior to the enactment of uranium mining legislation. More particularly, two areas of consensus surface from a review of these critiques: first, the industry documentation does not adequately support the conclusion that the benefits of the project outweigh its cost; and second, the data provided does not demonstrate that hazards and costs exist to warrant a permanent prohibition on uranium development.

Of primary concern are the health, safety and environmental hazards of uranium development. These impacts, the UAG found, should be evaluated now from the State's and public's perspective and given primacy in further evaluations. Once the State determines the maximum risk it is willing to accept in these areas, the industry will be in a position to judge whether it can meet the state standards and operate at a profit. Both the public and industry will benefit from having a well-defined state policy.

The UAG and the Uranium Subcommittee have found, on the basis of the studies to date, no indication that it is not feasible to design a state regulatory program that can satisfactorily control the potential hazards of uranium development. The UAG reported to the Commission its belief that it is appropriate to continue the UAG and utilize a state task force to oversee the completion of the background study and to develop guidelines that may be incorporated into permitting legislation and serve to shape specific regulations and performance standards.

More specifically, the UAG offered these recommendations:

1. The moratorium which prohibits state agencies from accepting mining applications should not be lifted.
2. Virginia should become an agreement state and assume regulatory responsibility if uranium development is allowed at some time in the future.
3. The UAG itself should be continued.
4. Under the direction of the UAG, a task force of state agency personnel should perform two duties:
  - a. an assessment of risk levels that could be expected from uranium development, and the development of proposed performance standards which would be necessary to limit these risks;
  - b. the completion of the Swanson project case study.
5. The UAG should submit a report on the studies specified in #4 (above), together with any appropriate draft legislation, to the Coal and Energy Commission so that its recommendations can be considered by the 1985 General Assembly.
6. The General Assembly should provide sufficient funds to accomplish the tasks outlined above.
7. Virginia's goal, if legislation allowing uranium development is approved in 1985, should be to have an Agreement effective with the NRC as of December 31, 1985.

The Uranium Subcommittee asked that these recommendations be considered directly by the full Commission. It has also prepared, for reference, a select list of studies undertaken pursuant to the Commission's uranium study. This list is attached as Appendix H.

#### **IV. RECOMMENDATIONS**

After careful consideration, the Commission has accepted the reports of its Subcommittees. Based on these reports, the Commission makes the following recommendations.

A. As suggested by the Renewable Energy Subcommittee, the Commission urges small hydro producers, the electric utilities, and the SCC to work together to foster the development of

small-scale hydro power.

B. The Commission has, since 1981, actively supported the development of a state energy policy. Having accepted the Energy Preparedness Subcommittee's recommendations in this regard, the Commission:

1. Encourages the Executive Branch and the General Assembly to consider the policy guidelines set forth in "Energy Issues in Virginia" when formulating any future state energy policies; and

2. Recommends that a state Energy Division be created, possibly as a part of the Office of Emergency Services (see Appendix C for draft legislation).

C. The Commission has adopted several resolutions for the purpose of increasing the production and use of Virginia coal:

1. The first (see Appendix E) opposes the enactment of a statewide severance tax on coal;

2. The second (see Appendix F) asks the Secretary of Commerce and Resources to review coal mining regulations;

3. The last of these (see Appendix G) memorializes Congress to establish emission standards only, and not specify technology to be used to reach these standards (e.g., scrubbers) in its efforts to abate the acid rain problem.

D. The Commission recommends that the uranium study be continued under the direction of the Uranium Subcommittee and the UAG. Under their direction, a state task force should undertake the completion of the Swanson project case study; this task force should also prepare draft performance standards which would serve as the basis for any state regulatory program. A detailed resolution adopted by the Commission to continue these efforts can be found in Appendix I.

Respectfully submitted,

Daniel W. Bird, Jr.

A. Victor Thomas

James F. Almand

Walter C. Ayers

John C. Buchanan

L. Blaine Carter

Charles J. Colgan

J. Paul Councill, Jr.

Cynthia J. Dahlin

Jerry D. Duane \*\*

Herbert O. Funsten, Ph.D.

Virgil H. Goode, Jr.

George W. Jones \*

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Everard Munsey

Frank W. Nolen

Lewis W. Parker, Jr.

Ford C. Quillen

Alson H. Smith, Jr.

Richard A. Wolfe, Ph.D.

\* George W. Jones had left the Commission by the time this report was adopted.

\*\* Concurring statement of Jerry D. Duane.

I concur with the findings and recommendations of the Commission report. I would, however, like to comment further on some of the recommendations of the Energy Preparedness Subcommittee:

1. I believe that low-income and elderly residents receiving fuel assistance funds and in need of weatherization should receive a high priority from the Commonwealth.

2. The Subcommittee discussed the possibility of allowing agencies to retain some of the savings realized when they decrease their energy costs. I believe that alternative financing such as this "shared savings" approach, should be given further consideration as a means of controlling energy costs in state facilities. Options such as this could be implemented without new expenditures.

**APPENDIX A**

**ENERGY ISSUES FOR VIRGINIA**

**RECOMMENDATIONS TO THE  
GOVERNOR AND GENERAL ASSEMBLY  
FROM THE COAL AND ENERGY COMMISSION**

**January 1984**

**Prepared by:  
THE ENERGY PREPAREDNESS SUBCOMMITTEE**

## Executive Summary

Although discoveries of oil and gas in the United States still almost match withdrawals during periods of intense exploration, the effort required to find new reserves of conventional petroleum fuels can be expected to continue to increase. The development of alternative resources are likely to be hampered by high costs or environmental difficulties.

The energy policy which must guide Virginia's response to this national problem should not be formulated in a single document but must evolve continuously from existing activities and capabilities of state government. It must take into account the dominance of economic forces and federal policy.

As part of the development of energy policy for the Commonwealth this paper addresses 13 issues, the resolution of which will partly determine the role of state government in energy matters. Recommendations growing out of the analysis of these issues include (in abbreviated form) the following:

- . Virginia should adopt a policy of caution with regard to tax credits or other subsidies for the use of particular energy resources. Normally the effects of a proposed subsidy should be studied for at least the full interval between sessions of the General Assembly before final action is taken. No subsidy should be given except for a limited time.
- . It should be the policy of the Commonwealth to provide the most favorable regulatory climate for energy development consistent with environmental goals. Virginia should also continue to provide information and educational programs for the public to encourage the orderly development of renewable and relatively abundant energy resources, but agencies should be cautioned against advocacy of any particular energy technology without a mandate from the Governor or the General Assembly. Support for research into the technology of energy development should continue to take the form of support for state institutions. Specific research programs should be sponsored by state government when they are of particular benefit to Virginia. Demonstration projects for new energy technology should continue to receive low priority for capital funding from state government resources.
- . Virginia's government should continue to promote the development and use of its indigenous energy resources by providing geologic and energy resource information which encourages industry to spend its development dollars in Virginia and by providing superior transportation facilities. Neither the public nor private sectors should be expected to give preference to Virginia energy resources except on the basis of quality, lowest cost and reasonable security of supply.
- . Economic consequences should be considered by Virginia's government in the formulation and application of environmental and other regulations affecting energy development, but the responsibility for the financial success of a project should lie with the

developer. In the case of projects by utilities, however, the State Corporation Commission should continue to have oversight responsibility for financial decisions as required to protect the ratepayer.

- Virginia's agencies and institutions should continue to actively encourage energy conservation by setting an example in their own facilities and through educational programs including the dissemination of information to the public. The Commonwealth should continue to evaluate such educational programs. When and if the federal support which is presently available for no other purpose than to operate these programs is diminished, the Commonwealth must consider whether the programs should be sustained at a reduced level with state funds.
- The Commonwealth has the obligation to assist its low income and elderly residents meet their energy needs. Because of the limited resources available to meet those needs, Virginia's government should adopt a policy which seeks to increase the energy efficiency of the low income housing stock. Although it appears that weatherization presents the most effective strategy for meeting this objective, an effort must be made to continually assess the impact that weatherization activities have on the housing stock. This approach is necessary in order to determine the level of funding which will ensure ongoing progress in upgrading the energy efficiency of low income residences while at the same time meeting the fuel needs of low income citizens. The Commonwealth should also actively promote such energy oriented programs as public education and low/no interest energy conservation loans. Programs such as community development grants, which have in the past been restricted to structural rehabilitation of residences of low and moderate income Virginians should be promoted as sources of energy conservation funds for low and moderate income households.
- The Commonwealth should commit itself to a more vigorous effort to control energy costs in state facilities. If successful, such an effort could yield savings from projected costs as large as \$8 million per year for a program cost as low as \$700,000 and with little or no increase in capital expenditures for energy conservation. Savings as large as \$16 million per year might be possible with additional capital expenditures. This effort should be undertaken in accord with the recommendations contained in the report "Ways to Control Energy Costs in State Facilities" by the Department of General Services.
- It is the policy of Virginia to generate and make available to the public information to encourage the exploration and development of its energy resources. State government should continue its efforts to inventory its extractable, nonrenewable energy resources and to maintain such information on renewable resources as may be of value to industry and the public.
- It should continue to be the policy of the Commonwealth to use the Uniform Statewide Building Code to reduce the possibility that minor reductions in construction costs will be achieved at the price of burdening occupants or owners with high energy usage and operating costs for the lives of their structures. The Commonwealth

should also continue its policy of adopting a national model code as recommended in the report "A Study of Existing and Potential Energy Conservation Requirements of the Uniform Statewide Building Code." Representatives of the Commonwealth should participate in the development of the energy conservation features of the BOCA code or other codes likely to be adopted by the Board of Housing and Community Development and should work toward the goal of energy conservation standards which minimize the total cost of building ownership. Representatives of the Commonwealth should also encourage changes in the schedule for the triannual revisions of the BOCA code to permit more rapid assimilation of new provisions of the ASHRAE standards upon which the energy conservation features of the Code are based. The Code should continue to be considered a minimum standard and the use of voluntary standards and educational programs for designers, builders and prospective owners of new buildings should be encouraged. Voluntary rating systems for the energy efficiency of buildings should also be encouraged.

- Virginia's government should study the possible measures available to it in the event of a fuel shortage and keep up with changes in the intended federal response to such a shortage. In the absence of a federal plan the state should formulate and maintain a contingency plan both for the allocation of fuels and for reducing demand during an emergency shortage of energy. Responses for various levels of shortfall should be specified as completely as practical.
- The development of Virginia's Outer Continental Shelf oil and gas resources could have a significant economic and environmental impact on the Commonwealth. If these resources are developed, the Commonwealth should ensure that the economic benefits of this development are realized and the environmental impact minimized. This is being accomplished by the Coordinator of Outer Continental Shelf Activities in conjunction with local governments and other interested parties.

Detailed analysis of the issues in Section II of this report suggests the limited degree to which state government can, as a practical matter, determine the mixture of energy resources produced and consumed in the state. As a result of the limited ability of state government to determine our energy future it is not appropriate for Virginia to put forward a plan which would map out the production and consumption of energy.

Virginia's government can, however, influence the Commonwealth's energy future to a limited degree through policy decisions that guide and coordinate its energy related functions. This document discusses those policy areas in which the Coal and Energy Commission believes that the Commonwealth can best influence its energy future. Recommendations are made in each area. The Commission welcomes public comment on these recommendations and on other aspects of this report.





# COMMONWEALTH of VIRGINIA.

Charles S. Robb  
Governor

*Office of the Governor*  
*Richmond 23219*

November 17, 1983

The Honorable James F. Almand  
Suite 206  
2060 North 14th Street  
Arlington, Virginia 22201

Dear Jim,

Having completed our evaluation of Virginia state government's energy organization, I'm writing to present my recommendations to the Energy Preparedness Subcommittee of the Virginia Coal and Energy Commission. The recommendations that follow should provide the necessary framework for implementing your subcommittee's energy policy recommendations, ensuring that Virginia has a well coordinated and clearly established mechanism for advising the Governor and General Assembly on energy issues of importance to the Commonwealth and meeting the objectives of our energy programs.

I make my recommendations based upon information gathered by the Department of Planning and Budget and the counsel of Secretary Fogarty and Secretary Diener. Our study of Virginia's energy organization found that thirteen state agencies (excluding the State Corporation Commission which operates as an independent agency) are appropriated \$20,999,250 in General Funds and \$65,551,240 in Non-General Funds and are authorized to fill 167 full-time equivalent positions in the 1982-84 biennium for the achievement of energy objectives according to the state's program budgeting system. Over 14 other state agencies are involved in secondary activities which can impact on Virginia's energy resources. Five Cabinet Secretaries and the General Assembly oversee the work of these state agencies.

The Department of Planning and Budget found that Virginia lacks an established mechanism to coordinate the activities of these numerous state energy programs and, as such, ensure that the \$86 million appropriated for these activities are spent in the most effective manner possible. The most significant deficiency of Virginia's current energy organizational structure is the lack of coordination which hampers the development and implementation of energy policy in Virginia, as well as our response to important energy issues arising at the local, state

The Honorable James F. Almand

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and national levels. The weaknesses of our present system cannot be practically addressed, given the numerous state agencies involved and the diversity of their activities, through the mere movement or consolidation of agencies within the state's organizational structure. Virginia must vest statutory responsibility within a single state agency for coordinating Virginia's energy programs and advising the Governor and General Assembly on energy matters if the Commonwealth is to achieve its energy objectives through the current organizational framework.

The Energy Division of the State Office of Emergency and Energy Services is best suited to perform this coordinating function. The Energy Division's sole focus is on energy matters and its staff closely monitors energy issues of importance to Virginia at the local, state and national levels. While the Energy Division's primary focus is on energy conservation, its personnel has considerable interest in and knowledge of the broad spectrum of Virginia state agency activities affecting both the development and conservation of Virginia's energy resources. The Energy Division has demonstrated its abilities through the assistance it has provided your Subcommittee in the publication of "Energy Issues For Virginia." Given the central role they've played in the publication of that document, they are ideally suited to ensure that its recommendations are properly implemented.

The Energy Division lacks the authority and mandate under the current organizational structure to effectively perform this coordinating function. As such, with the concurrence of your Subcommittee and the Coal and Energy Commission, I recommend introduction of legislation at the 1984 General Assembly session which would designate the Energy Division as Virginia's "lead" energy agency.

This legislation should vest the Energy Division, in addition to those responsibilities established in Executive Order #5 (1978), with responsibility for coordinating the development of energy policy in Virginia as well as the Commonwealth's response to energy issues that arise at the local, state and national levels. The Director of the Energy Division should be granted authority to bring together the appropriate state officials for the purpose of advising the Governor and General Assembly on energy issues of significance to Virginia.

As you know, I am currently considering a wide variety of reorganization proposals at the Secretarial and agency levels as part of my critical reevaluation of the proper role and function of Virginia's state government. While some of these proposals may impact on Virginia's energy agencies, the decisions affecting these agencies cannot be made independently of the reorganization decisions that will ultimately affect Virginia state government

The Honorable James F. Almand  
Page 3  
November 17, 1983

as a whole. As such, while I am not prepared to make recommendations for structural changes in Virginia's energy organization at this time, I will bring any such proposals to your attention when all of the necessary decisions have been made on the reorganization proposals I will be submitting to the 1984 General Assembly.

Once again, I greatly appreciate the leadership you and the Energy Preparedness Subcommittee have provided on energy issues facing Virginia's future. I'd be happy to respond to any questions you or the Subcommittee might have on my recommendations.

Sincerely,

A handwritten signature in black ink, appearing to read "Chuck", with a long horizontal flourish extending to the right.

Charles S. Robb

APPENDIX C

SENATE BILL NO. ....

A BILL to amend the Code of Virginia by adding in Chapter 3.2 of Title 44 sections numbered 44-146.29:1 and 44-146.29:2 and to repeal § 10-214 of the Code of Virginia, relating to the Division of Energy.

Be it enacted by the General Assembly of Virginia:

1. That the Code of Virginia is amended by adding in Chapter 3.2 of Title 44 sections numbered 44-146.29:1 and 44-146.29:2 as follows:

*§ 44-146.29:1. Division of Energy established; findings and policy; powers and duties.—The General Assembly finds that because energy-related issues continually confront the Commonwealth and many separate agencies are involved in providing energy programs and services, there exists a need for a state organization responsible for coordinating Virginia's energy programs and ensuring Virginia's commitment to the development of renewable and indigenous energy sources, as well as the efficient use of traditional energy resources. In accordance with this need, a Division of Energy, referred to in this section as the Division, is created in the State Office of Emergency Services. The State Coordinator of Emergency Services shall have general charge of the Division and the Division shall have the immediate authority to coordinate development and implementation of energy policy in Virginia.*

*The Division shall coordinate the energy-related activities of the various state agencies and advise the Governor on energy issues that arise at the local, state and national levels. All state agencies and institutions shall cooperate fully with the Division to assist in the proper execution of the duties assigned to the Division by this section.*

*In addition, the Division is authorized to accept grants from any source, and to make and enter into all contracts and agreements necessary or incidental to the performance of its duties or the execution of its powers, including the implementation of energy information and conservation plans and programs.*

*The Division shall:*

*1. Consult with any or all state agencies, and institutions concerning energy-related activities or policies as needed for the proper execution of the duties assigned to the Division by this section;*

*2. Maintain liaison with appropriate agencies of the federal government on the activities of the federal government relating to energy production, consumption, transportation and energy resource management in general;*

*3. Provide services to encourage efforts by and among Virginia businesses, industries, utilities, academic institutions, state and local governments and private institutions to develop energy conservation programs and energy resources; and*

*4. Observe the energy-related activities of state agencies and advise these agencies in order to encourage conformity with established energy policy.*

*§ 44-146.29:2. Solar Energy Center; purposes. The Virginia Solar Energy Center is continued as a part of the Division of Energy, an executive agency of the Commonwealth of Virginia. The purposes of the Center are: (i) to serve the people of the Commonwealth as a clearinghouse 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 nonstate funds for such purposes.*

2. That § 10-214 of the Code of Virginia is repealed.



# COMMONWEALTH of VIRGINIA

*State Office of Emergency and Energy Services*

December 21, 1983

310 Turner Road  
Richmond, Virginia 23225-6491  
(804) 323-2899

ANDERSON  
Coordinator  
SLAYTON, JR.  
Coordinator

Senator Daniel W. Bird  
The Coal and Energy Commission  
General Assembly Building  
Richmond, Virginia 23219

Dear Senator Bird:

At the meeting of the Coal and Energy Commission on September 20th, Delegate Almand, Chairman of the Energy Preparedness Subcommittee, recommended to the Commission legislation which would give a statutory mandate to the Energy Division of this agency. Under the proposed mandate the Division would coordinate the energy-related activities of state government and the development of recommendations for energy policy. It would also continue to implement the energy conservation activities which it now performs under executive order.

As you may remember, when this legislation was discussed Senator Goode asked for some assurance that the new mandate would not require additional expenditures of state funds. Delegate Almand offered to provide such assurance in the form of a letter from me.

I am pleased to be able to provide the requested assurance. For as long as the Energy Division remains a part of this agency, its prospective role as coordinator of the development of energy policy recommendations and of the energy activities of state government will be accomplished, along with current conservation activities, with existing staff levels and current funding. I do expect a slight shift of emphasis in the Division away from its conservation activities, but most of its programs should be unaffected.

Sincerely,

 A handwritten signature in cursive script, appearing to read "A. E. Slayton, Jr.", written over a faint circular stamp.
 

Addison E. Slayton, Jr.  
Acting State Coordinator

AESjr./TB/td  
cc: Delegate James F. Almand  
The Honorable Andrew B. Fogarty

## **APPENDIX E**

**A Resolution of the Virginia Coal and Energy Commission in opposition to any statewide coal severance tax.**

**WHEREAS, § 58-266.1:1 of the Code of Virginia allows local governments to enact a severance tax on coal; and**

**WHEREAS, this tax has traditionally been reserved to local governments, and has not been assessed by the Commonwealth; and**

**WHEREAS, attempts have been made periodically in the past to extend this assessment to the state level; and**

**WHEREAS, some individuals are giving thought to forwarding similar proposals now; and**

**WHEREAS, the coal industry in Virginia is in the midst of an economic depression; and**

**WHEREAS, an added tax assessment at this time would be extremely harmful to this industry; and**

**WHEREAS, a statewide severance tax on coal would unfairly establish a second level of taxation on this industry; and**

**WHEREAS, such a practice would inevitably lead to further hardship within the industry; now, therefore, be it**

**RESOLVED That the Virginia Coal and Energy Commission is opposed to the enactment of any statewide severance tax on coal.**

## **APPENDIX F**

**A Resolution of the Virginia Coal and Energy Commission requesting the Secretary of Commerce and Resources to review all regulations pertaining to coal mining.**

**WHEREAS, coal mining in Virginia is a heavily regulated industry; and**

**WHEREAS, a stringent regulatory framework is needed for this industry in order to protect the public welfare; and**

**WHEREAS, in an effort to be as stringent as necessary, Virginia government sometimes enacts duplicative regulations and reporting practices; and**

**WHEREAS, the coal industry is in a period of economic difficulty and cannot afford to meet costly, unnecessary regulatory requirements; and**

**WHEREAS, a thorough look at regulations affecting the coal industry is warranted; now, therefore, be it**

**RESOLVED by the Coal and Energy Commission, That the Secretary of Commerce and Resources shall review all regulations pertaining to coal mining; and, be it**

**RESOLVED FURTHER, That the Secretary of Commerce and Resources is requested to identify those regulations and reporting practices that are duplicative and; be it**

**RESOLVED FINALLY, That the Secretary is requested to coordinate this work with the Commission's Coal Subcommittee, and to complete it in time to report her findings and recommendations to the full Commission by January 1, 1985.**

## **APPENDIX G**

**A Resolution of the Virginia Coal and Energy Commission memorializing Congress to ensure that maximum flexibility is contained in any standards designed to combat acid rain.**

**WHEREAS, a phenomenon known as "acid rain" is thought to pose problems for the environment; and**

**WHEREAS, this phenomenon is thought to be caused, at least in part, by sulfur and nitrogen dioxide emissions from electric utility generating plants; and**

**WHEREAS, some have proposed that the only means that should be used to reduce these emissions is to require that electric utility generating plants be retro-fitted with scrubbers; and**

**WHEREAS, the installation of these scrubbers is estimated to be a very expensive solution, costing \$20 billion by the year 1995; and**

**WHEREAS, technology available to electric utilities changes constantly, and the time, if any, during which scrubbers would be considered an effective way to combat acid rain cannot be known; and**

**WHEREAS, new methods of removing sulfur from coal prior to its use are now being explored; and**

**WHEREAS, the use of coal that is already low in sulfur can similarly reduce these undesirable emissions; and**

**WHEREAS, Virginia has as one of its natural resources an abundance of this low-sulfur coal; and**

**WHEREAS, the use of this coal would be to the environmental benefit of the nation and the economic benefit of the Commonwealth, and could result in a net increase of 3,500 mining jobs in Virginia by the year 1995; and**

**WHEREAS, legislation has been introduced in the U.S. Congress which would require the use of scrubbers, thus benefitting states with high-sulfur coal and discriminating against those with low-sulfur coal;**

**WHEREAS, it is proper for Congress to set standards for utility emissions in order to control pollution; and**

**WHEREAS, utilities should then be allowed to decide what technology it will use or practices it will follow to comply with these standards; now, therefore, be it**

**RESOLVED That if regulatory standards to abate acid rain are adopted, that these standards be designed in such a way that they allow utilities to take maximum advantage of the different means available to combat this problem; and be it**

**RESOLVED FURTHER, That the Virginia Coal and Energy Commission memorializes the United States Congress to encourage research and development as to the causes and remedies of acid rain; and be it**

**RESOLVED FINALLY, That the Commission staff is directed to send copies of this resolution to all members of the Commonwealth's Congressional delegation.**



APPENDIX H

Selected List of Studies Undertaken  
Pursuant to the Uranium Study  
of the Coal and Energy Commission

<u>Name of Firm (or Educational Affiliation of Individual) Conducting Study</u>	<u>Studies Performed</u>	<u>Funded By</u>
Rogers, Golden & Halpern SENES Consultants Limited	Analysis of Marline/Union Carbide Studies (1983)	Commonwealth of Virginia
Rogers, Golden & Halpern SENES Consultants Limited	A Report on Proposed Uranium Mining in Virginia	Commonwealth of Virginia
College of William and Mary	Federal and state regulation of uranium mining and milling	Virginia Environmental Endowment
Virginia Polytechnic & State University	Tailings Management Geo-hydrology Soils Site Suitability	Commonwealth of Virginia
University of Virginia	Groundwater	Virginia Environmental Endowment
CH2M Hill	Review of portions of Marline/UCC study	Piedmont Environmental Council
Canonie Engineers Incorporated	Mining Milling Tailings Management	Marline
Morse Associates Incorporated	Radionuclide Baseline Data Radionuclide Data for Soils and Sediment Pathways Radiological Characteristics Operational Monitoring Plan Technical and Financial Qualifications Accident Analysis	Marline
W. Gale Biggs Associates	Meteorology Air Quality Ecology Cultural Resources Noise	Marline
Bromwell Engineering Incorporated	Site Geology Surface and Ground Water Tailings Management and Reclamation	Marline
Browne, Bortz and Coddington	Socioeconomic	Marline

## **APPENDIX I**

### **RESOLUTION**

#### **OF**

#### **THE VIRGINIA COAL AND ENERGY COMMISSION**

**WHEREAS, on December 15, 1983, the Uranium Administrative Group (UAG) reported its recommendations and proposal for expanding and concluding the studies called for by Chapter 3 of the 1983 Acts of Assembly (§§ 45.1-285.1 through 45.1-285.10 of the Code of Virginia); and**

**WHEREAS, the Commission has held public hearings in Pittsylvania and Halifax Counties and the City of Richmond to hear public comment on the UAG report, has considered public and industry response to the UAG recommendations, and has reviewed industry, state consultant and independent reports and analyses of the industry studies conducted in Pittsylvania County; and**

**WHEREAS, the Commission, as a result of these deliberations, has been able to make the following findings:**

- (i) the site specific study submitted to the UAG by Marline/Union Carbide was conducted in a very compressed time frame and does not provide sufficient data to justify a conclusion at this time either that uranium mining should be allowed to proceed or should be prohibited;**
- (ii) the studies and analyses available now give no indication that uranium development cannot be conducted on a basis acceptable to the Commonwealth under a soundly conceived and implemented regulatory program;**
- (iii) the UAG proposal to continue the study and provide a state agency task force offers the best opportunity to continue the study process without interruption and complete the study in a responsible and expeditious manner;**
- (iv) the simultaneous and complementary investigations which the UAG has proposed that a state agency task force undertake will allow a proper completion of the Pittsylvania County studies, a careful costs and benefits analysis of uranium development , and the formulation of the guidelines which the State should follow in developing and implementing an effective regulatory program;**
- (v) neither the State nor any interested industry stands to profit from precipitous construction of mining facilities before the scope and content of the state regulatory program for a mine-mill-tailings complex are identified;**
- (vi) the present prohibition in § 45.1-283 of the Code of Virginia should be left in effect pending legislative action after the completion of these further studies and will continue in effect until further action is taken by the General Assembly to provide a program to permit uranium mining;**
- (vii) the recommendation that Virginia should seek agreement status is persuasive and is tentatively endorsed by the Commission to the end that the State will be in a position to take primary responsibility for regulation of all aspects of a uranium mine-mill-tails complex in a comprehensive program tailored to Virginia's environment and demography;**
- (viii) as part of the continuing study, it is appropriate for the proposed state task force to consider the proper scope of the State's participation in an agreement state program - whether it should participate in the total program or only those parts of it that focus on uranium mills and mill tailings;**
- (ix) the UAG should continue in effect and capitalize on the experience and knowledge gained**

in 1983;

- (x) the Commission should continue the pattern followed in recent weeks and through its Uranium Subcommittee should meet and work jointly with the UAG to complete any necessary studies so that the Commission will be in the position to evaluate 1984 recommendations and legislative proposals of the Uranium Subcommittee and the UAG in an informed and prompt manner;
- (xi) the study should continue without interruption during 1984, and the necessary funds should be appropriated to complete the study this year;
- (xii) under § 9-145.1, authority is vested in the Commission to conduct investigations of potential energy sources, and state agencies are directed to assist the Commission so that the Commission is authorized to request the various state agencies to assist it in the conduct of the study called for by this Resolution; and
- (xiii) to expedite the completion of these studies, it is reasonable to set October 1, 1984 as the report date for the state task force, November 1, 1984 as the report date for the Uranium Subcommittee and the UAG, and December 1, 1984 as the report date for the Commission; now, therefore be it

**RESOLVED** by the Virginia Coal and Energy Commission That the Uranium Subcommittee and the Uranium Administrative Group be requested to continue their efforts and be assisted by a state agency task force.

**RESOLVED FURTHER** That the following state agencies are requested to form a task force composed of the agency head or director, or his designee: the Department of Agriculture and Consumer Affairs, the State Air Pollution Control Board, the State Water Control Board, the Department of Health, the Department of Conservation and Economic Development, the Department of Labor and Industry, and the Council on the Environment. The task force shall perform its responsibilities under the direction of, and shall report to, the Uranium Subcommittee and the UAG. The Governor is requested to select a chairman for the task force.

**RESOLVED FURTHER** That the task force shall perform the following studies and report its findings to the Uranium Subcommittee and the UAG:

A. Based on all available information, the task force shall:

1. assess the level of risk that could be expected from uranium development under the application of various existing and possible alternative policies and performance standards;
2. recommend for consideration by the Commission and General Assembly a level of risk acceptable to Virginia;
3. recommend guidelines for performance standards that would be incorporated into agency regulations and that would be necessary to limit risks, if possible, to an acceptable level; and recommend guidelines that would incorporate standards equivalent to or more stringent than any applicable federal standards; and
4. initiate the development of draft regulations based on these standards.

B. The task force shall:

1. oversee completion of any study initiated in 1983 under the provisions of Article 2 of Chapter 21 of Title 45.1;
2. conduct an independent analysis of any such study and include in its analysis:
  - a. risk assessment, in which total radiation dose, including mine radon emissions, is calculated from all planned and accidental sources, and is translated into health risks for all affected individuals.

b. economic impacts, including a realistic assessment of number of jobs, tax revenues for county and Commonwealth, periodic unemployment effects, costs to both Commonwealth and locality of infrastructure, regulating the industry, and long-term surveillance and management and possible correction of hazardous conditions that might arise after the closure of the facility, and the effect the industry would have on the attraction of other industry; and

c. costs and benefits, if it is feasible to determine them, of the uranium industry in the Commonwealth.

C. The task force shall examine the scope of the agreement state program under § 274 of the Atomic Energy Act of 1954, as amended, and recommend the degree to which the Commonwealth shall seek to participate in the program and the appropriate lead or participating state agencies.

D. The task force shall report to the Uranium Subcommittee, the UAG, and the Commission on the first of each month with respect to the progress of its studies.

E. The task force shall endeavor to complete its studies and report by October 1, 1984.

**RESOLVED FURTHER** That the Uranium Subcommittee of the Commission be directed to work jointly with the UAG during the continuation of these studies so that the Commission may be ready to evaluate their 1984 report, recommendations and proposals for legislation in an informed and prompt manner.

**RESOLVED FURTHER** That, in order to allow these studies to proceed immediately, the Commission Chairman is requested to arrange for any necessary consulting services as soon as practicable;

**RESOLVED FINALLY** That the Subcommittee and the UAG shall conclude their review of the task force reports by November 1, 1984, and report their findings and any appropriate legislation to the Commission by that date.

Agreed to by the Commission on January 13, 1984.