REPORT OF THE

VIRGINIA COAL AND ENERGY COMMISSION

TO THE GOVERNOR AND
THE GENERAL ASSEMBLY OF VIRGINIA

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REPORT OF THE
VIRGINIA COAL AND ENERGY COMMISSION

TO: The Honorable George F. Allen, Governor,
and
the General Assembly of Virginia

I. Introduction

The Virginia Coal and Energy Commission has been directed by statute to study all aspects of coal as an energy resource, and endeavor to assist in the development of renewable and alternative energy resources (§ 9-145.1 of the Code of Virginia). This document is submitted as the Commission's report on its 1993 activities.

The range of activities undertaken by the Commission in 1993 evidences the breadth and complexity of issues relating to coal and energy in the Commonwealth. Occupying most of the Commission's meetings were four areas of concern. The health and future of Virginia's coal industry was accorded a high priority. After peaking in 1990, production, demand, and price for Virginia coal has steadily declined. Coal exports from Hampton Roads dropped from 53.3 million tons in 1992 to an estimated 38.5 million tons in 1993. Though many of the reasons for the declines are due to international factors, such as lower demand for electricity and metallurgical coal in Europe and increasing competition from other coal-producing countries, the Commission discussed steps for improving the situation. The Commission ratified several of the preliminary recommendations of the comprehensive export plan for Virginia coal prepared by the Department of Economic Development (DED), the Department of Mines, Minerals and Energy (DMME), and the Virginia Center for Coal and Energy Research (VCCER), pursuant to Senate Joint Resolution 208 (1993).

The Energy Preparedness Subcommittee met twice to address alternative sources of financing for Virginia's energy programs following the cessation of federal oil overcharge funds. After studying the services provided under the Low Income Home Energy Assistance Program (LIHEAP), the Weatherization Assistance Program (WAP), the Institutional Conservation Program (ICP), and the State Energy Conservation Program/Energy Extension Service (SECP/EES), the subcommittee recommended that the Commission endorse agency proposals for general fund appropriations to offset a portion of the lost federal funds. Funding for energy programs was also addressed in connection with other activities of the VCCER, the Powell

River Project, and DMME, including implementation of the Virginia Energy Plan.

The third topic on which the Commission focused its attention was the development of alternative and renewable sources of energy. This is consistent with the goals of the Virginia Energy Plan. The removal of barriers to the use, availability and acceptance of renewable energy sources and alternative transportation fuels can accelerate the commercialization of these resources in the Commonwealth. The preliminary findings of a study authorized by DMME reveal numerous opportunities for action to foster these resources in the utility, building, and transportation sectors. The Energy Preparedness Subcommittee also dedicated a meeting to studying the opportunities and incentives for the burning of waste tires as an alternative source of fuel.

Finally, the Commission continued its role of monitoring implementation of energy policies affecting Virginia. The principal recent development has been the enactment of the federal Energy Policy Act of 1992 (EPACT). Though implementation of many nonregulatory aspects of EPACT will depend on congressional funding, Virginia can position itself to take advantage of opportunities for federal funding. The other major recent policy development continues to be the State Corporation Commission's outlining of parameters for public utility conservation and load management programs. A June 1993 order establishing mandatory cost/benefit analyses of conservation and load management programs and endorsing of a multiperspective approach to program evaluations culminates the SCC's three-year effort to address broad policy questions.

At its meeting on January 11, 1994, the Commission accepted the resignation of A. Victor Thomas as chairman, and applauded him for his able leadership during the preceding two years. Frank W. Nolen, formerly vice chairman, was elected as the Commission's new chairman. J. Paul Councill, Jr., was elected as the new vice chairman of the Commission.

II. Commission Actions and Recommendations

The Virginia Coal and Energy Commission made several key recommendations to the Governor and the 1994 General Assembly following its meetings in 1993 and 1994. Some furthered the Commission's view that public programs promoting energy innovation and energy conservation should continue to play a vital role in the Commonwealth's energy strategy. Consequently, the Commission recommended general fund appropriations to

replace dwindling federal dollars in state energy programs. Also recommended: general fund appropriations for coal and energy research.

The Commission also examined coal industry marketing strategies. As the international coal market is marked by increased competition from low-cost sources, and as overseas demand for metallurgical coal slackens as a result of western Europe's continuing recession, Virginia's coal industry is challenged to find new and innovative ways to attract overseas purchasers. The Commission endorsed the Department of Economic Development's (DED) recommendations for actions by the Governor and the Congressional Delegation to assist the development of a Virginia coal export strategy.

1. Funding for State-Based Energy and Research Programs.

a. Weatherization Assistance Program funding. The Commission studied the Weatherization Assistance Program (WAP) and concluded that it has amply demonstrated its worth and the importance of its mission: making energy-efficiency improvements to homes of low-income individuals and families throughout the Commonwealth. The loss of federal dollars resulting from the Oil Overcharge Fund's depletion placed this program at a critical juncture: replace these lost federal dollars, or lose the financial capability to run a state-wide program--which would render the program ineligible for federal grant funding from the U.S. Department of Energy. The Commission recommended a $750,000 general fund appropriation to stabilize the program for the remainder of the current budget biennium. Additionally, the Commission recommended a $1.5 million general fund appropriation in each of the subsequent fiscal years to ensure program viability.

b. Division of Energy Funding. The Division of Energy, within the Department of Mines, Minerals and Energy (DMME), was largely funded until recently by the federal Oil Overcharge Fund. The Division administers two key statewide energy programs: (i) the Institutional Conservation Program and (ii) the State Energy Conservation Program and Energy Extension Service. The loss of oil overcharge funds without replacement funding would eliminate the Division's capacity to operate an effective, state-wide program. The Commission endorsed DMME's efforts to obtain general fund appropriations totaling approximately $4 million within the next budget biennium.

c. Funding for the Virginia Center for Coal & Energy Research. The Virginia Center for Coal and Energy Research (VCCER) at Virginia Polytechnic Institute and State University plays a vital role in producing key reports and statistical analyses utilized in formulating the Commonwealth's energy policies. The Commission relies heavily on the VCCER for timely

reports on matters of interest or concern to the Commission; 1993 was no exception. Thus, for a second, consecutive year, the Commission strongly recommended that the VCCER receive an individual line item within the Commonwealth's budget. Specifically, the Commission recommended that the appropriation for the Research Division at Virginia Polytechnic Institute and State University include $150,031 each year for the VCCER. The Commission sent correspondence to the Governor and to the Chairmen of the Senate Finance and House Appropriations Committees recommending this appropriation.

2. Developing Marketing Strategies for Coal Exports.

The Commission received an extensive report from representatives of DED and the VCCER concerning the development of a coal export marketing strategy for the Virginia coal industry. The study was conducted at the General Assembly's request pursuant to Senate Joint Resolution 208 of 1993. The Commission endorsed two key study recommendations: (i) conducting a Governor's Symposium with leaders of the coal industry and related industries to examine emerging regulatory, technological, ecological and marketing issues affecting international markets for Virginia coal and (ii) urging Virginia's Congressional Delegation to encourage and work for the export of United States coal to offset the current trade imbalances with certain foreign governments, including Japan. The Commission sent a letter to the Governor urging him to convene a coal export symposium. A legislative member of the Commission introduced a joint resolution encouraging Virginia's Congressional Delegation to work for the export of United States coal.

3. Other Recommendations -- Public Procurement Act.

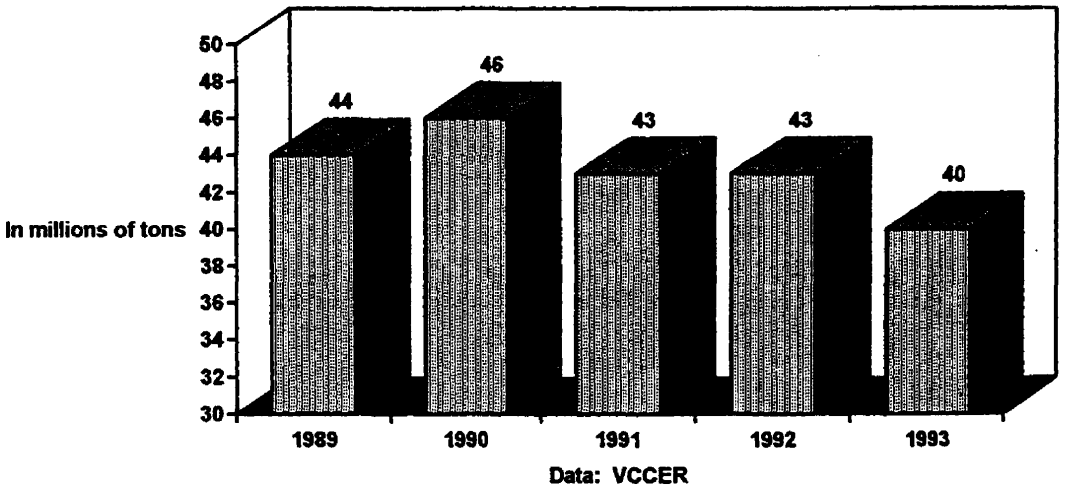
A joint subcommittee established pursuant to SJR 207 of 1993 examined ways to encourage the purchasing of environmentally benign goods and products in the public procurement process. The Commission learned of draft legislation recommended by the joint subcommittee requiring the purchase of "less-toxic goods and products" meeting performance specifications for particular procurements. Concerned that the broad sweep of the proposed amendments to the Virginia Public Procurement Act could have the unintended effect of placing coal at a competitive disadvantage in the procurement process, the Commission recommended to the General Assembly that a better approach would be to require the development of public procurement specifications and procedures that encourage consideration of environmental benefits to the Commonwealth as well as economic benefits to the Commonwealth's native industries.

III. State of the Coal Industry

A. Coal Production and Export Trends

Following 1990's record-setting year, demand for Virginia coal has drifted downward. According to VCCER Director, Dr. John Randolph, this trend continued in 1993 with Virginia coal production declining from 1992 levels by nearly 10 percent. Additionally, year-end reports from the Virginia Port Authority indicate that coal export shipments through the Hampton Roads ports fell from 53.3 million tons in 1992 to an estimated 38.5 million tons in 1993.

Virginia Coal Production 1989-1992



Data: VCCER

Virginia's coal industry reflects a national decline as total U.S. production in 1993 was projected to drop by at least five percent. Slumping electricity sales, linked to a nationwide recession and milder winters and summers, have substantially reduced the demand for coal-fired electrical generation. Moreover, nuclear-powered generation facilities are setting capacity factor records, effectively reducing coal demand. Economic downturns abroad--particularly in Europe--have also reduced the coal export market.

While the Virginia coal industry's near-term outlook is bleak, the future may be brighter in some aspects. For example, the first electrical generating unit at the Virginia Power/Old Dominion Electric Cooperative's 786 megawatt, coal-fired facility in Clover, Virginia is scheduled to go on line in 1995; the second in 1996. When fully operational, the facility reportedly will require delivery of 11,000 tons of coal per day--a significant market opportunity for Virginia mine operators.

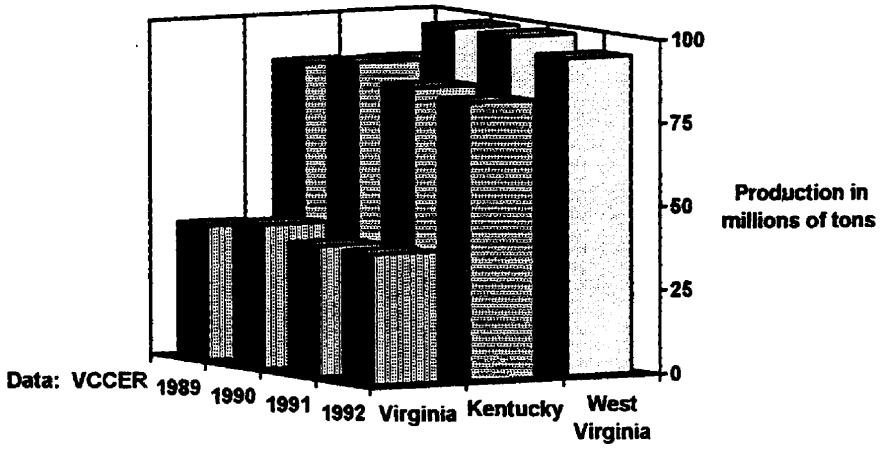
Additionally, implementation of the 1990 federal Clean Air Act Amendments' Phase I could result in significant demand for Virginia's low-sulfur coal--perhaps as much as an additional 36 million tons per year. Beyond the year 2000, however, the outlook is uncertain. Key variables, including natural gas prices, the growth of nuclear-powered electrical generation, and the environmental regulatory climate, will determine the Virginia coal industry's future.

B. Mining Employment in Virginia and Central Appalachia

Commission members asked the VCCER to determine whether mine operators with coal mines in both Virginia and adjacent states were moving mining jobs out of Virginia to their other mines--perhaps because operating costs might be lower. Aggregate data do not show any clear trends, however, particularly when focusing on mining employment statistics from key coal-producing counties in Virginia, West Virginia and eastern Kentucky .

In terms of mine production, all three states gained in 1990, led by southern West Virginia's 15 percent increase. Virginia's production rose 10 percent and eastern Kentucky four percent.

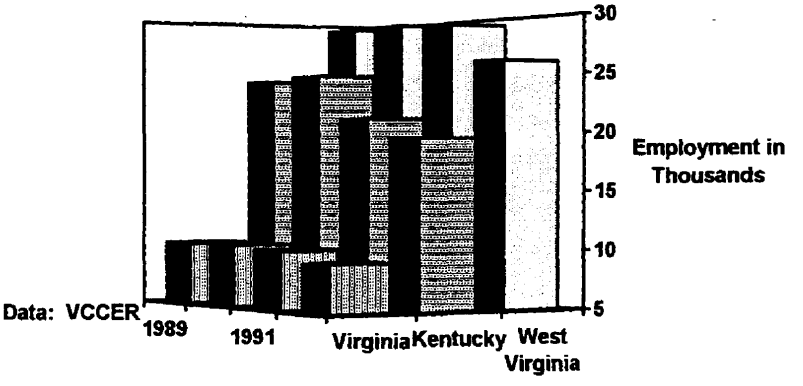
Central Appalachia Coal Production 1989 - 1992 (totals for key coal-producing counties in each state)



Between 1990 and 1992, however, Virginia's production declined by 10 percent, while production in southern West Virginia dropped four percent and eastern Kentucky eight percent. For the first 10 months of 1993, Virginia production level was flat, while southern West Virginia was down 12 percent and eastern Kentucky was down four percent.

All three states' mining employment levels were stable in 1990's peak production year (Virginia was down 0.3 percent; West Virginia was up 0.3 percent and eastern Kentucky was up 1 percent. All three states have lost miners since then. From 1990 to 1992, Virginia's mine employment dropped 12 percent, West Virginia 12 percent and eastern Kentucky 22 percent. The summary of mining production and employment Dr. Randolph submitted to the Commission is attached to this report as Appendix A.

Central Appalachia Mining Employment 1989 - 1992 (totals for key coal-producing counties in each state)



A related issue examined by the Commission was whether mining job losses in the Commonwealth's mining regions have translated into increased social services costs. The VCCER reported that while these costs have not been quantified, available data suggests a negative correlation between mine unemployment and transfer payments (social services costs, etc.) made within Virginia's coal field counties.

Dr. Randolph reported that the Center for Public Service at the SEED Center at Clinch Valley College conducted a study of government transfer payments (GTP) as a percentage of county income for the coal field counties (e.g., Buchanan, Wise, Norton, Dickenson, etc.). GTP included welfare, social security, unemployment compensation, food stamps and ADC payments. GTP data were available for 1980 and 1987.

The GTP data and mine employment data showed that while GTP as a percent of income for the entire Commonwealth decreased from approximately 17 percent in 1980 to 16 percent in 1987, the coal field counties' GTP as a percentage of income increased from approximately 20 to 23 percent. As this measure increased by 15 percent in the coal field counties from 1980 to 1987, the number of miners decreased by 18 percent. Statistical

information Dr. Randolph submitted to the Commission concerning this study is part of Appendix B.

C. Coal Export Plan Study

Historically, the bulk of Virginia's coal exports have been destined for the overseas steel industry. As that demand declines due to increased competition from other international coal exporters, e.g., Poland, Columbia, South Africa, etc., increased uncertainty suggested the need for a comprehensive coal export strategy. The 1993 Virginia General Assembly expressed its concern about the declining export market when it passed Senate Joint Resolution 208.

SJR 208 requested DED, in consultation with DMME, and the VCCER, to develop a coal export plan identifying key export markets and proposing strategies for penetrating new markets while maintaining and broadening current ones. George Hiller from DED and VCCER's Dr. John Randolph reported the study's results to the Commission. Key study findings are as follows:

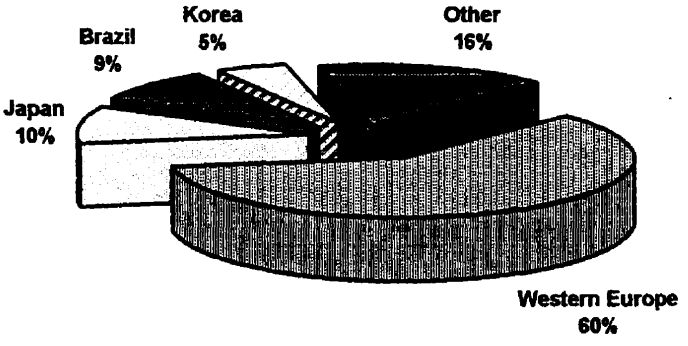
- Sixty percent of all Central Appalachian coal exports leaving Hampton Roads are destined for Europe.
- Central Appalachian coal export activity is currently flat due to international competition. Export tonnage is not expected to increase any more than two percent by the year 2000.
- The export market for steam coal is improving. However, Central Appalachian coal, due to high extraction costs, will have to compete on the basis of quality rather than price.
- The price of and demand for Central Appalachian coal are largely controlled by market forces rather than government policies.
- State tax and regulatory relief may be one of the few ways the Commonwealth can enhance the coal industry's competitiveness.

One very significant study conclusion was that Hampton Roads coal export statistics are an important barometer for Virginia's coal industry. Thirty-seven percent of Virginia-mined coal is exported from Hampton Roads, and 30 percent of Hampton Roads exports come from Virginia mines. Coal shipped from Hampton Roads also provides economic benefits to the Commonwealth from transport and port operations. It is estimated that in 1992 alone, direct economic benefits to Virginia from coal exports totaled over $2.4 billion.

Another key statistic: 81 percent of Hampton Roads coal exports are shipments to the overseas metallurgical market. The study concluded that

the metallurgical market will likely continue to be the mainstay and Western Europe will continue to be the primary market opportunity for Hampton Roads coal sales. However, the study also concluded that exports of metallurgical coal must maintain their market share in all export markets, particularly in Japan, Korea and Brazil.

Coal Exports from Hampton Roads



Data: DED/VCCER

The study's report made several recommendations including: (i) conducting a Governor's Symposium with leaders of the coal industry and related coal industry to examine emerging regulatory, technological, ecological and marketing issues affecting international markets for Virginia coal and (ii) urging Virginia's Congressional delegation to encourage and work for the export of United States coal to offset the current trade imbalances with certain foreign governments, including Japan. A summary of the DED marketing study and a synopsis of its recommendations are attached as Appendices C and D.

The Commission formally adopted the recommendations detailed above and voted to send a letter from the Commission to the Governor urging him to conduct a coal marketing symposium. A copy of the letter is attached as Appendix E. Additionally, the Commission requested its legislative members to introduce a joint resolution in the 1994 Session expressing the General Assembly's desire for active coal export advocacy by the Virginia Congressional Delegation. The resolution--Senate Joint Resolution 180--is attached as Appendix F.

IV. Funding for Virginia's Energy Programs

A. Funding Energy Programs Without Oil Overcharge Funds.

The largest source of funding for the Commonwealth's energy programs since 1986 has been federal oil overcharge funds. Oil overcharge funds were collected by the federal government, which required certain oil companies to disgorge excess profits earned during the oil shortages of the 1980s. The U.S. Department of Energy has distributed the available funds to states, subject to restrictions on their application. Oil overcharge funds have now been collected and distributed. After the 1993-1994 fiscal year, Virginia has no assurance of receiving additional oil overcharge funds. Consequently, energy programs that have benefited from these funds face the loss of a major funding source.

Virginia's share of the oil overcharge revenues has been substantial. The U.S. Department of Energy allocated over $110 million in oil overcharge funds to the Commonwealth from 1987 through 1991. The principal recipients of these funds have been the (i) Low-Income Home Energy Assistance Program (LIHEAP), administered by the Department of Social Services, which received $33 million; (ii) Weatherization Assistance Program (WAP), administered by the Department of Housing and Community Development (DHCD), which received over $32.8 million; (iii) Institutional Conservation Program (ICP), administered by the Division of Energy of the Department of Mines, Minerals and Energy (DMME), which received $7.5 million; and (iv) State Energy Conservation Program/Energy Extension Service (SECP/EES), also administered by the Division of Energy, which received almost $8.7 million. These four programs account for over $82 million of the oil overcharge funds that have been allocated to the Commonwealth. The balance of Virginia's oil overcharge funds has been used for the State Energy Team, Virginia Housing Partnership Fund, Human Services Transportation, Mass Transit Capital, Energy Efficient Transportation for the Handicapped, and the Small Business Revolving Loan Fund.

Of the $110,052,829 in oil overcharge expenditures in Virginia from 1987 to 1991, 80 percent was used for programs in the residential sector. Kathy J. Reynolds, Deputy Director for Resource Management at DMME, noted that this allocation does not match state energy consumption patterns. The largest share of the state's energy consumption is for transportation (55 percent), followed by industry (28 percent), residential (17 percent), and commercial (12 percent). Petroleum is the largest source of energy expenditures (55 percent), followed by electricity (37 percent) and natural gas

(six percent), with other energy sources accounting for two percent of expenditures.

Oil overcharge funds provided a major source of funding for the Commonwealth's energy programs in the 1992-1994 biennium. The eight million dollars allocated to Virginia in this two-year period has been distributed among LIHEAP (three million dollars), WAP ($750,000), ICP ($2.3 million), and SECP/EES ($1.7 million). The Energy Preparedness Subcommittee examined the efforts of the three agencies administering these programs to continue providing energy assistance despite the curtailment of this funding source. A summary of oil overcharge fund allocation information is attached (Appendix G).

1. Low Income Home Energy Assistance Program.

The Department of Social Services administers the Low Income Home Energy Assistance Program (LIHEAP) through local social services departments. The 1993-1994 budget for LIHEAP was approximately $29.5 million, of which all but $53,899 was from the federal LIHEA grant. The Program's budget for 1992-1993 was $30.3 million, and included three million dollars in oil overcharge funds. The LIHEAP budget has declined every year since 1989-1990, when oil overcharge money constituted $8.6 million of a budget of $40.5 million. Oil overcharge funds provided over $20 million to the program in the four fiscal years ending in 1992-93.

Cathy Olivis of the Department of Social Services described the three programs administered by her agency under LIHEAP. The largest component of LIHEAP is the Fuel Assistance Program, which provided $24.3 million to over 322,000 persons in almost 125,000 households in 1992-1993. This program provides resources to eligible households for assistance in paying residential heating costs.

The Crisis Assistance program, which is required to provide assistance to households with energy related, weather related, or supply shortage emergencies that cannot be met by the Fuel Assistance program or other local resources, provided $2,600,000 to over 38,000 people in over 13,000 households in 1992-93. Federal guidelines require that a portion of the state's energy assistance grant be set aside for the Crisis Assistance program.

The third component of LIHEAP is the Cooling Assistance program. Local implementation of this program is optional. The Department allocated approximately $500,000 for this program in 1992-1993. In 1991-1992, which is the last fiscal year for which data on the population served was available, $677,595 was made available to 7,273 persons in 2,954 households.

Ms. Olivis reported that the average household receiving a payment under the Fuel Assistance program had an income of $7,800 in 1992-1993. In that year, the typical household of 4.5 people received a benefit of $195, compared with an annual benefit of $261 in the previous year. The maximum benefit amount under the Fuel Assistance program was $311.

The Department of Social Services faces a decline in its federal funding for LIHEAP of approximately two million dollars between 1992-1993 and 1993-1994. A summary of LIHEAP budget information is attached (Appendix H). Ms. Olivis informed the Energy Preparedness Subcommittee that her agency would not request a general fund appropriation for the 1994-1996 biennium to offset the loss of federal funds. Current federal regulations require that the program serve households at 110 percent of the poverty level, though the Virginia program has been serving households at 130 percent of the poverty level. The program may tighten the eligibility requirements in order to reduce the number of households served. Other options for coping with the budget reduction include eliminating the Cooling Assistance program, reducing administrative costs by centralizing application processing at the state level, and trying to obtain unclaimed utility account deposits, which currently escheat to the Literary Fund.

2. Weatherization Assistance Program.

The Weatherization Assistance Program (WAP) is administered by the Department of Housing and Community Development (DHCD). WAP, which provides home weatherization assistance to qualifying low-income households, is implemented statewide through 26 local agencies that contract with DHCD. The Program finances repairs and improvements to residences which in order to improve their energy efficiency. By saving money on energy costs, recipients of services provided by weatherization programs are better able to manage their living expenses. WAP inspections also address heating system safety by testing carbon monoxide levels and electrical components.

The maximum that can be spent on improvements at a residence is $1,700. Examples of improvements provided by WAP include weather-stripping and storm window installation, furnace upgrades, and sidewall insulation. An evaluation of WAP services conducted in 1989 and 1990 by the Virginia Center for Coal and Energy Research has led to changes in the services provided by the program. Energy savings rates have increased substantially as a result of shifting from installing replacement windows and storm doors to improvements in furnace efficiency and insulation. By shifting resources to more cost-effective weatherization improvements, energy savings for WAP recipients have jumped from 5-10 percent in 1988-

1989 to 30-72 percent in 1992-1993. As the effectiveness of the program's expenditures has increased, the percentage of funds spent on administrative expenses has dropped from 12 percent to 4.5 percent.

Program funding averaged more than eight million dollars in each of the eight fiscal years from 1984-85 through 1991-92. Appropriations for WAP declined from $7.9 million in 1991-1992 (of which approximately $4.8 million was oil overcharge funds) to $3.7 million in 1992-1993 (of which $750,000 was oil overcharge funds), and to $3.1 million in 1993-1994 (which did not include any oil overcharge funds). These figures do not reflect actual expenditures in these years, though, as $2.7 million of the 1991-1992 appropriation was carried over to the following year to transition the reduced funding. Similarly, one million dollars of the 1992-1993 appropriation was carried over into 1993-1994 to transition the reduced funding. A summary of program information is attached (Appendix I).

The effect of the cessation of oil overcharge funds threatens the viability of the state's weatherization assistance program, according to DHCD Director Neal J. Barber. WAP's sole source of funds in the current fiscal year is a $3.1 million grant under the U.S. Department of Energy's weatherization assistance program. In order to qualify for these DOE funds, a state's weatherization program must provide statewide coverage. Oil overcharge funds have supplemented these DOE funds in order to provide the necessary statewide coverage. Some of the 26 local operators across the Commonwealth have questioned their ability to continue operating year round without the oil overcharge money. The local weatherization program contractors are bracing for a 50 percent cut in funding on July 1, 1994. A summary of the program's funding outlook is attached (Appendix J).

WAP has served over 135,433 low-income persons in over 74,000 households since its inception in 1981. The Weatherization Assistance Program served 3,627 households in 1991-92, and 2,880 households in 1992-93. Figures presented by Billy Weitzenfeld, president of the Association of Energy Conservation Professionals, indicate that almost 220,000 households are eligible for WAP assistance but have not been served.

While members of the subcommittee voiced support for the activities of the weatherization program, concern was raised regarding the degree of coordination between WAP and LIHEAP. Households receiving financial assistance with heating bills may be eligible for weatherization assistance, which could ensure a more effective allocation of the scarce assistance funds. Subcommittee member Everard Munsey suggested that the agencies institute a better system of tracking clients of the WAP and LIHEAP programs. He asked the agencies to determine whether money spent on improving the energy efficiency of housing stock reduces the need to distribute payments for

fuel bills. Other members of the subcommittee stressed the need for accurate measurement of the program's efficiency in reducing energy waste.

The Energy Preparedness Subcommittee agreed to recommend that the full Commission endorse two funding requests for WAP. In the current fiscal year, a general fund appropriation of $750,000 is needed to continue meeting client needs. In addition, $1,500,000 of general funds is required in each of the two following fiscal years to ensure continued program viability.

3. Programs Administered by the Division of Energy.

The Division of Energy of DMME administers two energy assistance programs that have relied extensively on oil overcharge funds. The Institutional Conservation Program (ICP) has provided over $26 million for technical assistance and energy conservation improvements at 751 schools and hospitals in the Commonwealth. This money has been matched by almost $18 million in local funds. Improvements paid for with ICP funds have resulted in estimated annual savings of $10.5 million and conservation of 2.08 trillion BTUs.

The second Division-administered energy assistance program is the State Energy Conservation Program/Energy Extension Service (SECP/EES). Originally separate programs, the consolidated SECP/EES targets consumers for education regarding energy conservation. Major activities include residential outreach, transportation efficiency, and grants to local governments. The local government grants program distributed $1,356,316 for 166 projects between 1987 and 1990. These funds were matched by over one million dollars in local money. SECP/EES activities have saved over $465 million in energy expenses and an estimated 66 trillion BTUs. According to Ms. Reynolds, agency-administered energy programs have reached 1.5 million people, or 24 percent of the state's population, between 1987 and 1991.

The Division of Energy has relied almost exclusively on federal funds to finance SECP/EES. It has not received any appropriations of general funds, other than annual dues for the Southern States Energy Board of $38,000, since 1986. The Division does not expect to receive any further oil overcharge moneys. In addition to administering the ICP and SECP/EES programs, the Division of Energy is responsible for implementing portions of the Virginia Energy Plan. Ms. Reynolds presented an overview of the status of the Plan at the Energy Preparedness Subcommittee's August 10, 1993, meeting. Though federal oil overcharge funds have not been used to finance implementation of the Plan, all of the Division's energy assistance programs share the need for an adequate source of funding.

The Virginia Energy Plan, announced in 1991 by Governor Wilder, calls for a 25 percent reduction in the use of energy in state facilities by 1998. Such a reduction would save the Commonwealth $25 million and 42 trillion BTUs annually. The three sources of energy usage on which reduction efforts have focused are (i) agency administration, which encompasses procurement, telecommuting, and recycling; (ii) facilities management, including efficient lighting, creative financing, and capital outlay standards, and (iii) transportation, which covers efforts at carpooling, driver training, and fleet conversion.

The Division of Energy is envisioned as playing a vital role in Virginia's energy future. A major task will be acting as a clearinghouse for the portion of the two billion dollars in federal funds that may be allocated to Virginia for implementation of the federal Energy Policy Act of 1992 (EPACT). The federal act provides opportunities for leveraging public and private resources and may require that states pledge matching funds in order to receive certain competitive grants. A permanent source of funding will help Virginia receive federal dollars under EPACT, according to Ms. Reynolds. New mechanisms for allocating money to states will stress leveraging of state money through matching grants, competition, and partnerships with the private sector.

Other duties envisioned for the Division of Energy in Virginia's energy future include building coalitions and partnerships for leveraging public and private resources; developing strategic policies in such areas as conservation, energy forecasting, and contingency planning; enabling change by removing barriers to new and alternative technologies, such as photovoltaics, clean coal technologies, and the use of wood waste as fuel; demonstrating new and emerging technologies; coordinating efforts of other state agencies in the implementation of the Virginia Energy Plan; and conducting promotional activities to increase public awareness of the Energy Plan. A summary of the Division of Energy's activities is attached (Appendix K).

B. <u>Alternative Sources of Funding for Energy Programs.</u>

The Commission recognized the detrimental effect of the loss of oil overcharge funds on energy assistance programs and asked affected agencies to present options for alternative financing sources.

Kathy Reynolds of DMME presented the Commission with a comparison of funding for energy programs in 13 other states at its meeting on June 28, 1993. Six of the states surveyed (Delaware, Florida, Georgia, North Carolina, South Carolina, and West Virginia) are similar to Virginia insofar as they rely on federal grants and oil overcharge funds for energy programs in the residential, commercial, and industrial sectors. None of these

jurisdictions has adopted alternative funding mechanisms. Ms. Reynolds identified five approaches to program funding that have been instituted in other states. These include:

General fund appropriations: Thirty-nine percent of Pennsylvania's, and seven percent of Maryland's, energy program's budget is appropriated from the general fund. In Pennsylvania, the general fund appropriation totaled $1.7 million. In Maryland, the appropriation was $220,000.

Fees for services: Washington generates one million dollars (1.9 percent of the program's budget) by charging state and local government agencies fees for conducting energy audits and program designs.

Utility Assessments: California, New York, and the Bonneville Power Administration (BPA) in Washington fund energy programs through the assessment of a surcharge on utility payments. California's surcharge generates $40 million annually for the Energy Resources Program Account. New York collects $2.4 million through a surcharge on all end users of natural gas and electricity. BPA collects eight million dollars for energy programs.

Revenue Bonds: The Iowa Facilities Improvement Corp. provides $12 million in financing for energy improvements in state facilities by issuing Energy Conservation Bonds. The bonds are repaid from rent paid by the state agencies on related equipment. Pennsylvania's Energy Development Authority issues $175 million in revenue bonds to finance energy projects.

Revolving Loan Funds: Arizona, California, and Maryland have established revolving loan funds. The funds have been established with oil overcharge money, despite arguments that money from the federal program was intended to be used for restitution which must be completed within ten years. These loan programs typically provide that loan proceeds will be repaid from savings in energy costs from increased efficiency.

At the Energy Preparedness Subcommittee meeting on August 10, 1993, Ms. Reynolds outlined three options for dealing with the revenue shortfall caused by the cessation of oil overcharge moneys in Virginia. First, the loss of funds for improving the energy efficiency of public buildings could be offset by third party financing programs, such as master lease programs and loans that could be repaid from the savings generated by increased energy efficiency. Second, the loss of oil overcharge funds could be offset by the appropriation of general fund revenue. Third, Virginia could impose a surcharge on the consumption of energy.

As noted above, New York and California offer examples of states which fund energy programs through an energy consumption surcharge. New York's Utility Assessment Fund receives one third of one percent of the gross operating revenues of gas and electrical utilities. The state's Energy Office received $6.3 million of the $69 million raised by the tax. A separate fee is assessed on gas and oil utilities to raise revenue for the State Energy Research and Development Fund. In 1992-93, $2.6 million was raised from fees at a maximum rate of 0.6 cents per 1,000 cubic feet of natural gas and 0.006 cents per kilowatt hour of electricity consumed. California requires end users of electricity to pay a surcharge of 0.0002 cents per kilowatt hour. The $34.2 million raised in the 1991-92 fiscal year supported the California Energy Commission, which functions as a combination of our State Corporation Commission and Division of Energy.

Four scenarios of how an energy surcharge option could be implemented in Virginia were presented to the subcommittee. Under the first scenario, the state would raise two million dollars annually to offset the amount of oil overcharge funds currently allocated to Division of Energy programs. On the basis of an assumption that 70 percent of the revenue would be generated from electricity usage and 30 percent from natural gas usage, raising $2,105,014 would require a surcharge of 0.00002 per kilowatt hour of electricity and 0.004 cents per thousand cubic feet of gas. This option would cost residential customers an average of $.01 per month for electricity and $.04 cents per month for natural gas.

The second scenario sketches a surcharge to raise two million dollars for the Energy Division and $3.5 million for the weatherization assistance program. These programs' costs of $5.5 million could be funded with a surcharge of 0.000053 cents per kilowatt hour and 0.01 cents per thousand cubic feet.

Under the third scenario, almost seven million dollars would be raised to provide enough money to offset the loss of oil overcharge funds for LIHEAP, WAP, and the Energy Division programs. To raise this amount using the same allocation of 70 percent from electricity and 30 percent from natural gas, the surcharge rates would be 0.000067 cents per kilowatt hour and 0.013 cents per thousand cubic feet.

The final scenario provided funding for existing programs at the same levels as outlined in the third option but adding an additional five million dollars for research and development for energy programs. To raise almost $12 million, the tax on electricity would be 0.000115 cents per kilowatt hour, and the tax on natural gas would be 0.022 cents per thousand cubic feet. Summaries of the four scenarios are attached (Appendix L).

Other agencies receiving oil overcharge funds proffered ideas for alternative program funding sources. Ms. Olivis of the Department of Social Services identified five potential sources of additional funding for energy assistance programs. Unclaimed customer deposits at utility companies could be set aside for these programs. The AFDC-EA program could be expanded to cover special energy-related needs. The state income tax return form could provide a check off for allocating portions of refunds to energy programs. The administrative costs of LIHEAP could be reduced by the implementation of centralized application processing. Finally, the legislature could appropriate money from the general fund for these programs.

The Department of Housing and Community Development is investigating several funding sources for the Weatherization Assistance Program as alternatives to the federal oil overcharge funds. Appalachian Power Company is funding a $150,000 pilot project in Southwest Virginia. Local operators have been asked to look at Community Development Block Grants and other programs as supplemental funding sources. Mr. Weitzenfeld of the Association of Energy Conservation Professionals informed the Energy Preparedness Subcommittee that the program in Montgomery County is attempting to leverage its funds by charging ineligible customers for weatherization services. The profit from providing services to paying customers is then applied to the low-income assistance program.

The Energy Preparedness Subcommittee, chaired by Delegate James F. Almand, met on November 29, 1993, to deliberate on proposals for maintaining energy programs facing the loss of federal oil overcharge revenues. The Division of Energy within the Department of Mines, Minerals and Energy, and the Weatherization Assistance Program within the Department of Housing and Community Development, asked the subcommittee to endorse their requests for general fund appropriations. Ms. Reynolds of DMME advised the members that the Energy Division needs $2,150,000 annually to maintain current operations. According to William T. Beachy, Jr., of DHCD, the Weatherization Assistance Program needs an annual appropriation of $1.5 million to continue its activities. Cathy Olivis of the Department of Social Services' Low Income Home Energy Assistance Program noted that her agency did not submit a budget request for general funds, despite budget reductions of over two million dollars from the 1992-1993 fiscal year to the 1993-1994 fiscal year.

The members of the subcommittee unanimously recommended that the full Commission endorse the general fund budget requests made on behalf of the Division of Energy's programs and the WAP. The full Coal and Energy Commission agreed to lend its support to the agencies' requests for general fund appropriations for these two programs. At its meeting of November 29,

1993, the Commission endorsed DHCD's request for an appropriation for the WAP of $1.5 million for each year of the 1994-1996 biennium. At the same time, the Commission endorsed a request by DMME for a general fund appropriation of $2,150,000 for Division of Energy programs. On January 11, 1994, the Commission endorsed an amendment to the appropriations bill for the period ending June 30, 1994, to increase state funding for the WAP by $750,000. The chairman of the Commission forwarded letters to the staffs of the Senate Finance and House Appropriations Committees to advise them of the Commission's actions. Copies of these letter are attached as Appendix M.

C. Financing DMME Programs.

In addition to the threats to Division of Energy programs posed by the absence of stable sources of funding, the Department of Mines, Minerals and Energy warned the Commission at its November 29, 1993, meeting that it may not be able to continue to perform all of its present statutory duties if its budget is reduced. Ms. Reynolds outlined recent trends in the Department's budget. Since the 1989-90 fiscal year, general fund appropriations have been flat or have declined, while the percentage of general fund dollars spent on personnel costs has risen.

Despite the lack of new resources, the agency has witnessed an increasing demand for its services. Programs absorbing additional shares of these resources include (i) responding to land subsidence complaints, which have risen 51 percent; (ii) responding to water loss complaints (up 170 percent); (iii) administration of the Applicant Violator System, which handles over 5,000 entries and 1,200 inquiries; (iv) handling a 2,700 percent increase in the number of coalbed methane wells; and (v) implementing the Virginia Energy Plan.

The Department told the Commission that it has maintained a "quality culture" during this three-year period of expanding duties and shrinking resources. It has done so by continuing the "core services" that are mandated or are critical to its mission, while shedding lower priority work, restructuring the remaining work, and fully supporting all remaining staff. The agency has realized savings of more than $2.3 million by (i) reducing discretionary spending by $380,000; (ii) increasing operational efficiency, which has saved $560,000; (iii) eliminating staff positions, at a savings of $465,000; (iv) eliminating certain services, including the small mine safety program, topographic mapping updates, and the used oil recycling program, at a saving of $500,000; and (v) switching the source of payment of some agency expenses, including increased reliance on regulatory fees and indirect cost recovery, for a saving of $425,000.

DMME is now out of options. At Governor Wilder's request, the agency has submitted additional budget cuts of four percent, 10 percent, and 18 percent for the 1994-1996 biennium budget. These reductions translate into revenue reductions of between $400,000 and $1.8 million, on top of the 23 percent in cuts already absorbed by the Department. Any additional funding reductions will be borne by personnel reductions because operating expenses are a comparatively minor portion of the cost of the agency's programs. A summary of the budget information is attached (Appendix N).

D. Virginia Center for Coal and Energy Research.

The issue of state funding for the Virginia Center for Coal and Energy Research at Virginia Polytechnic Institute and State University was again the subject of action. Last year the Commission recommended that the state budget be amended to establish a line item for VCCER. The 1993 Session of the General Assembly revised the 1992-1994 biennial budget to provide that the appropriation for the Research Division at Virginia Tech include $150,031 each year for VCCER.

VCCER has continued its role of providing technical information for the Coal and Energy Commission. As noted elsewhere in this report, the Center provided the Commission with results of research on the status of and trends in the coal industry, employment in the coal mining regions of Virginia, and the Commonwealth's implementation of the federal Energy Policy Act of 1992.

The Commission was alerted at its meeting of January 11, 1994, that the budget submitted by outgoing Governor Wilder for the 1994-1996 biennium eliminated funding for VCCER. The members of the Commission unanimously agreed to endorse a request to be sponsored by Delegate Thomas seeking the restoration of funding. The Commission agreed to encourage incoming Governor Allen to continue funding for this program, and to ask the Senate Finance Committee and the House Appropriations Committee to restore the appropriation for the Center. A copy of the letter to the Governor is attached as Appendix E, and copies of the letters to the staffs of the legislative committees are attached as Appendix O.

E. Powell River Project.

The statutory charge of the Virginia Coal and Energy Commission includes endeavoring "to encourage research designed to further new and more extensive use of the coal as well as alternative and renewable energy resources of the Commonwealth" (§ 9-145.1). In furtherance of this function, the Commission was briefed on the Powell River Project on November 29,

1993. The programs and capabilities of the Project are a valuable resource for the coal-producing counties of southwestern Virginia. The Project, founded in 1980 as a program of Virginia Tech, sponsors research and distributes information for the benefit of people, governments, and industries in Lee, Scott, Wise, Dickinson, Buchanan, Russell and Tazewell Counties and the City of Norton.

Dr. Carl E. Zipper, Associate Director for Programs at the Powell River Project, advised the Commission of four technologies developed through the Project for use by the coal industry to decrease regulatory compliance costs, protect the environment, and increase the use potential of reclaimed mine sites. Examples include the development of reforestation guidelines for mined land; of a passive, biological technology for treating water contaminated by mine drainage; and of guidelines for revegetating coal-mining refuse using techniques that require less soil than the costly standard four-foot cover. A related initiative is developing alternatives to septic drainfields in reclaimed mines. If successful, this process has the potential to allow residential use of the land where public sewers are unavailable.

The programs of the Powell River Project are not limited to mining. Studies are now underway which focus on household water quality and the likely effects of future coal production trends on local tax revenues. The Project also conducts education programs for over 1,500 students from the region annually at its 1,700 acre education center in Wise County.

The Project is involved in two initiatives seeking to extend its scope to a regional basis. Personnel are working with the University of Kentucky to develop the Central Appalachian Alliance. The goal of the Alliance is to involve state universities, including the University of Tennessee and West Virginia University, in the region in projects that will address common problems facing all jurisdictions. The Project is also leading a regional effort to develop innovative means of restoring abandoned mine land. This problem involves land that was mined and abandoned, without being reclaimed, prior to the enactment of legislation in 1977. Regulations have prohibited the commencement of new mining on the same lands until the pre-existing problems have been addressed. The regional effort is investigating policy options to increase opportunities for restoring these abandoned lands by companies seeking to re-mine the property.

Dr. Zipper noted that less than 10 percent of the Project's budget comes from general fund appropriations. Nevertheless, this state money is essential to the Project's continued viability. Much of the Project's resources are in the form of matching and parallel funds and in-kind contributions. Contributions from the coal industry, notably Penn Virginia Resources Corp. and Norfolk Southern, have been the Project's major source of direct support.

In 1992-93, every dollar of state funding was matched by nearly six dollars of non-university funding. A summary of the Project's programs, personnel, and funding is attached (Appendix P).

V. Development of Alternative Energy Resources

A. Barriers to the Development of Renewable Energy Industries.

One of the two goals of the Virginia Energy Plan is to advance renewable and alternative energy sources in the Commonwealth. The establishment of the Solar Photovoltaic Manufacturing Incentive Grant Fund by the 1993 Session of the General Assembly is credited with luring a $30 million solar photovoltaic cell plant to Newport News. The plant, which is anticipated to provide 450 jobs by 1998, will build panels that convert sunlight into electricity. This incentive program is an example of actions the state government can take to accelerate the development of renewable and alternative sources of energy within the Commonwealth.

In furtherance of the Energy Plan's goal, the Department of Mines, Minerals and Energy has engaged Renewable Energy Consultants, Environmental Solutions, and the Flemming Group to conduct a study of barriers to the use, availability, and acceptance of renewable energy sources and alternative transportation fuels in order to accelerate the commercialization of these resources in the Commonwealth. At its meeting of June 28, 1993, the Commission received a report from Ms. Reynolds regarding the scope of the study and the anticipated schedule.

The Department's Request for Proposals outlines six goals, including (i) identifying policy, legal, market, financial, institutional and informational barriers to renewable and alternative energy sources; (ii) identifying the potential reserve of renewable energy and alternative fuel in Virginia; (iii) estimating the value of the benefits accruing from full utilization; (iv) identifying barriers, such as regulatory limitations, economic disincentives, and lack of experience and education, to full utilization of these energy sources; (v) prioritizing recommendations for removing identified barriers; and (vi) describing a model resource planning and procurement process.

At the Commission's November 29, 1993, meeting, Ms. Reynolds presented the consultant's preliminary findings of its study of the resource and economic development potential for meeting Virginia's energy needs in the 21st Century with cost-effective indigenous renewable resources. Four benefits will accrue to Commonwealth by taking the lead in meeting energy needs through this approach. First, it will increase flexibility and

competitiveness. Second, it has the potential for the formation of a new sustainable energy industry, such as the manufacture of solar photovoltaic materials, which can offset any job declines in the traditional fossil fuel industries. The third advantage is the potential of renewable energy projects to stimulate the state's agricultural industry. Finally, it can help the environment. Renewable energy sources offer opportunities to meet the requirements of the Clean Air Act Amendments, maintain energy self-sufficiency, and optimize pollution prevention opportunities.

The preliminary findings identified utilities, building, and transportation as three sectors of the economy where barriers may be removed, or incentives may be created, for the expansion of renewable energy resources industries. Several opportunities for further investigation were cited for each of these sectors. Opportunities in the utility sector include: (i) establishing a board of experts in renewable energy technologies within the SCC; (ii) strengthening the SCC's statutory authority regarding the environmental and economic impacts of power generation; (iii) a wind and solar renewable energy set aside program; (iv) the use of a standard contract for power projects not exceeding 10 megawatts; (v) maximizing the potential of wood co-firing as a clean coal strategy; (vi) using photovoltaic technology as an alternative to extending electrical power lines; (vii) incorporating renewables into utility demand-side management programs; and (viii) developing a research and development program for renewable energy sources.

Two opportunities were identified in the building sector. The Commission was asked to consider a program offering rebates to builders for the use of renewable energy systems, such as passive solar and integrated photovoltaic equipment, in new construction. In the public sector, capital outlay projects could consider including cost-effective renewable technologies.

In the transportation sector, opportunities for investigation include commercializing alternative fuels, using municipal and agricultural waste and energy crops for bio-fuel production, offering tax-exempt bond financing to encourage alternative fuel industry development, and establishing an incentive grant program for manufacturers of components of alternatively-fueled vehicles. The consultants' final report is due in June 1994.

B. Waste Tires as Fuel.

In response to inquiries raised during the Commission's November 29, 1993, meeting regarding the use of waste tires as an alternative fuel source, the Chairman asked the Energy Preparedness Subcommittee to investigate the status of efforts to tap this source of energy. The subcommittee received several perspectives on this issue on January 11, 1994.

Burning waste tires for fuel provides the dual benefits of recovering a valuable energy resource and disposing of a product that poses potential environmental hazards. The joint subcommittee studying end-use markets for recycled products pursuant to House Joint Resolution 466 (1992) has been examining options for increasing the beneficial use of waste tires. Martin Farber, staff to the HJR 466 subcommittee, reported that the alternatives for enhancing markets for recycled materials generally that have been studied include (i) giving a preference in the state procurement process to bidders whose materials contain the most recycled content, (ii) granting tax credits or exemptions for facilities utilizing these materials; (iii) opening the state procurement process to manufacturers of goods containing recycled material; and (iv) appointing a market development council of citizens charged with developing a plan for developing marketing infrastructure.

The HJR 466 subcommittee, chaired by Delegate Kenneth Plum, has actively sought to encourage the use of waste tires. Legislation proposed by the subcommittee, and enacted as Chapter 211 of the 1993 Acts of Assembly, amended the Waste Tire Trust Fund to provide partial reimbursement to end users for the cost of using waste tires or chips for resource recovery. End users of tires for resource recovery purposes include persons who utilize the heat content or other forms of energy from the incineration or pyrolysis of the material. The Waste Tire Trust Fund consists of the net proceeds of the 50 cent per-tire tax imposed on each new tire sold in the Commonwealth. Similar subsidy programs in Oregon and Idaho proved successful in eliminating waste tires. In these jurisdictions over 90 percent of the tires were burned for energy.

The Department of Environmental Quality (DEQ) is developing procedures for partially reimbursing the costs of using waste tires. Deanna Sampson, Legislative Liason at DEQ, reported that draft regulations should be completed by March 1994, and final regulations should be effective late in 1994. Approximately 4 million waste tires are generated annually in the Commonwealth. Three fourths of these tires are disposed of in landfills, sent out of State for disposal, or improperly dumped. Between 700,000 and 900,000 waste tires are used for energy production, making it the predominate method of beneficially using waste tires. Other beneficial uses, including use in asphalt or molded rubber products, civil engineering applications, pyrolysis, and retreading, are not widespread.

Three facilities have the necessary permits from the Air Pollution Control Board to burn tires. These are the Southeast Virginia Public Service Authority, which burns 400,000 tires annually; a private recycler in Richmond which burns between 200,000 and 400,000; and Fairfax County, which burns 100,000. Two other facilities, in Roanoke and Henry Counties, that have recently attempted to meet air emission requirements have failed

and the projects are being reconsidered. Ms. Sampson reported that Virginia Power is planning a test burn of waste tires at a power station.

Harry E. Gregori, Jr., Director of the Division of Policy at DEQ, noted that the technology exists to burn tires for fuel. The two facilities that have not been successful to date in their attempts to burn their tires cleanly can be redesigned in order to achieve the goal of immediate combustion. Much of the unacceptable air pollution from burning waste tires occurs when the tires are put in the furnace too early and smolder. A summary of DEQ's waste tire program is attached (Appendix Q).

The third perspective on the use of waste tires for fuel was presented by Fred Cohrs, Chief Executive Officer of Roanoke Cement Company. Waste tires have been used for fuel in cement kilns in Europe since the early 1970s, and 25 kilns in this nation use tire-derived fuel sources. Tires are a valuable fuel source because one ton of tires is the heat-generating equivalent of 1.1 tons of coal, and solid residues become part of the product.

Mr. Cohrs recounted that his firm planned to reengineer a kiln to burn 1.3 million whole tires per year in lieu of 15,000 tons of coal. Unfortunately, the economics of the project do not address the cost of the tires. The use of tires requires additional capital expenditures on a fuel delivery system. A subsidy is needed to lower the delivered cost of the tires to $20 per ton in order to cover the additional capital investments. Without legislation ensuring income through disposal or tipping fees on tires delivered to the plant, or low-cost delivery of tires, the project may not be feasible. Mr. Cohrs added that his firm spent $200,000 on air emissions testing from 1990 through July 1992, when the project was shelved. The restrictive conditions on carbon monoxide emissions make it difficult to know when a permit could be obtained. Subcommittee chairman James Almand noted that his concerns regarding a subsidy for the cost of the waste tires may be alleviated when the Waste Management Board promulgates regulations for accessing the Waste Tire Trust Fund.

Mr. Gregori reported that other states with incentives for tire disposal provide $20 to $40 per ton for current flow tires, which corresponds to $.20 to $.40 per tire. However, for tires which have been illegally dumped, a comparable incentive would be in three dollars to four dollars per tire. One of the biggest obstacle to the use of illegally dumped tires is the cost of retrieving and transporting them to an appropriate facility. Collecting them from tire piles requires additional expenditures, such as the cost of bringing in equipment to the dumping site. If the dumped tires were readily accessible and insufficiently large numbers, the price may be less.

In addition to the goal of beneficially using the four million waste tires generated in Virginia each year, the state is addressing the potential problems caused by the 17.6 million tires now in illegal dumps. Efforts are underway to dispose of this backlog of waste tires by increasing the economic demand for this material. The Waste Tire Trust Fund is viewed as a means of addressing this barrier by providing a subsidy for their beneficial use. However, while the six million dollars in the Waste Tire Trust Fund may be adequate to provide incentives for the current flow of waste tires, it is not sufficient to cover the accumulated backlog of waste tires.

VI. Implementation of Energy Policies

A. Virginia Implementation of the National Energy Policy Act of 1992.

The federal Energy Policy Act of 1992 (EPACT) affects virtually every energy-producing industry and public utility. The state-by-state impacts are now emerging as key portions of the Act are better understood, and as regulations implementing key provisions are being developed. VCCER's Dr. John Randolph briefed the Commission on the Act's impact on Virginia energy policy.

The change of presidential administrations will influence this Act's ultimate impact. The Clinton Administration's budget plans and Congress's response to them will determine whether the federal government will back the Act's policies with appropriations. Some of the programs created (or continued in some cases) will be in limbo until funding is authorized.

In the meantime, parts of the Act will move ahead. For example, states anticipating funding of certain programs, including the alternative-fueled state vehicle fleet program, will probably prepare state plans to ensure their qualification. Several key EPACT provisions requiring or likely to result in state action are summarized in the chart below. A complete summary of the initiatives with state-implementation requirements as presented to the Commission is attached as Appendix R.

NEPA-impacted area	Provision	State Action in Virginia	Additional State Action Likely
Coal Mining	Mandates subsidence-impacted water replacement.	HB 1687 - water replacement legislation.	Review [illegible] Office of [illegible] regulation [illegible]
Electricity	Exempts wholesale generators (EWGs) from state regulation as public utilities. Mandates EWG access to public utility transmission system.	Independent Power Producers (IPPs) established.	Monitor Federal Energy Regulatory Commission [illegible]
Alternative Fuels & vehicles	Mandates [illegible] of fleets utilizing alternate fuels.	Virginia Department of Transportation establishing Compressed Natural Gas (CNG) fleet.	[illegible]
Energy Efficiency	Funds weatherization partner[illegible] Encourages utility demand-side management (DSM) programs; funds utility regulatory DSM programs.	Virginia Weatherization Assistance Program activities with utilities, private sector participation. State Corporation Commission (SCC) ruling of March 1992 encouraging DSM as an alternative to facilities construction.	Apply for federal funding available through Department of Energy (DOE). [illegible] SCC [illegible] to DOE for federal DSM program grants [illegible] available.
Renewable Energy	Subsidizes qualifying renewable energy facilities (QREF), authorizes investment tax credits, promotes demonstration/ commercialization program.	Photovoltaic production grant authorized by Senate Bill 876 of 1993.	Monitor [illegible] and federal programs.

Data: VCCER

B. Developments in Demand Side Management.

In June 1993 the Virginia State Corporation Commission released an order establishing cost/benefit rules for proposed public utility conservation and load management programs. This order capped the SCC's three-year effort to address broad policy questions about conservation and load management (CLM) programs of electric and natural gas utilities.

Richard Williams, SCC Economics and Finance Director, told the Commission that the June 1993 order established rules on mandatory cost/benefit analyses of proposed CLM programs. It supplemented a 1992 SCC order requiring public utilities proposing new conservation and load management programs to file formal applications with the SCC. The cost/benefit tests were subsequently developed by the SCC's staff with the assistance of a task force consisting of Virginia's Secretary of Natural

Resources and representatives from Virginia's electric and gas utilities, the Office of the Attorney General, and other parties with interests in gas and utility rates.

The SCC's June 1993 order established a multiperspective approach to evaluating CLM, or demand-side (DSM) programs. Utility applicants seeking SCC approval for proposed DSM programs must provide cost/benefit analyses using the following four tests: participant test, utility cost test, rate payer impact measure (RIM), and total resource cost. Cumulatively these tests look at (i) the costs and benefits to customers who participate in a utility's DSM program, as well as to those who do not; (ii) potential changes in utility revenue resulting from the program; and (iii) the change in the average cost of energy services across the utility's entire customer base as result of the program.

Virginia's electric utilities have received approval for a number of DSM programs since the Commission's June 1993, DSM order. Several recently approved programs proposed by Virginia Power (VP) and Appalachian Power Company (APCO) include: financing programs for energy efficient heating and cooling equipment (VP),offering discounts to customers purchasing compact fluorescent light bulbs (APCO), heat pump purchasing incentives (APCO), and field study pilot programs providing a total of $1 million in direct payments to qualifying residential customers for installation of advanced energy savings systems (VP). Appendix S contains a summary of Mr. Williams' presentation to the Commission.

C. Energy Choices in Public Procurement.

Senate Joint Resolution 207 of 1993 continued a joint subcommittee study convened in 1992 to identify and evaluate potential incentives for the adoption of pollution prevention initiatives. The Commission learned that included in the SJR 207 subcommittee's final recommendations was a proposed amendment to the Virginia Public Procurement Act requiring that "less toxic goods and products" meeting the performance standards established in applicable specifications be included in the procurement processes of the Department of General Services and other agencies of the Commonwealth.

The Commission agreed with the laudable goals of utilizing the Commonwealth's procurement process as a means of asserting leadership in the purchase and use of more environmentally benign products. However, the Commission was concerned about one potential, but probably unintended, consequence of this broad proposal: placing coal at a competitive disadvantage in the procurement of fuel for state facilities. The Commission

adopted a resolution recommending that, to the extent goods and products' environmental benefits are considered, economic benefits to native industries be given due consideration as well. The Commission's resolution is attached as Appendix T.

Respectfully submitted,

Senator Frank W. Nolen, Chairman
Delegate J. Paul Councill, Jr., Vice Chairman
Delegate A. Victor Thomas, Immediate Past Chairman
Delegate James F. Almand
Senator Charles J. Colgan
Mr. John S. DiYorio
Mr. Jerry D. Duane
Ms. Kaye G. Green
Mr. W. Thomas Hudson
Mr. Everard Munsey
Delegate Lewis W. Parker, Jr.
Mr. Scott Perkins
Senator H. Russell Potts, Jr.
Delegate Ford C. Quillen
Senator Jackson E. Reasor, Jr.
Delegate Alson H. Smith, Jr.
Delegate Jackie T. Stump
Senator William C. Wampler, Jr.
Delegate John C. Watkins
Richard A. Wolfe, Ph.D.

APPENDICES

Appendix A

Current Status of the Virginia Coal Industry

Recent trends:
(see figures on production, employment, wages, Hampton Roads exports)

1990:	markets strong, prices up, U.S. & VA production peaks	
1991,1992:	demand down, prices down, production down	
1993:	looking worse:	prices continue down
	thru May:	U.S. production down 5.8% (EIA)
		VA production down 9.3% (EIA)
		Hampton Rds exports down 29% (HRMA)

Why?

- Electricity growth slow: recession, mild weather
- Nuclear performance: capacity factor record
- Export slump: weakened Australian dollar: prices down sharply

Impacts: uncertainty, company shakeups, labor push for job security

Outlook, 1993-1995: continued tough times

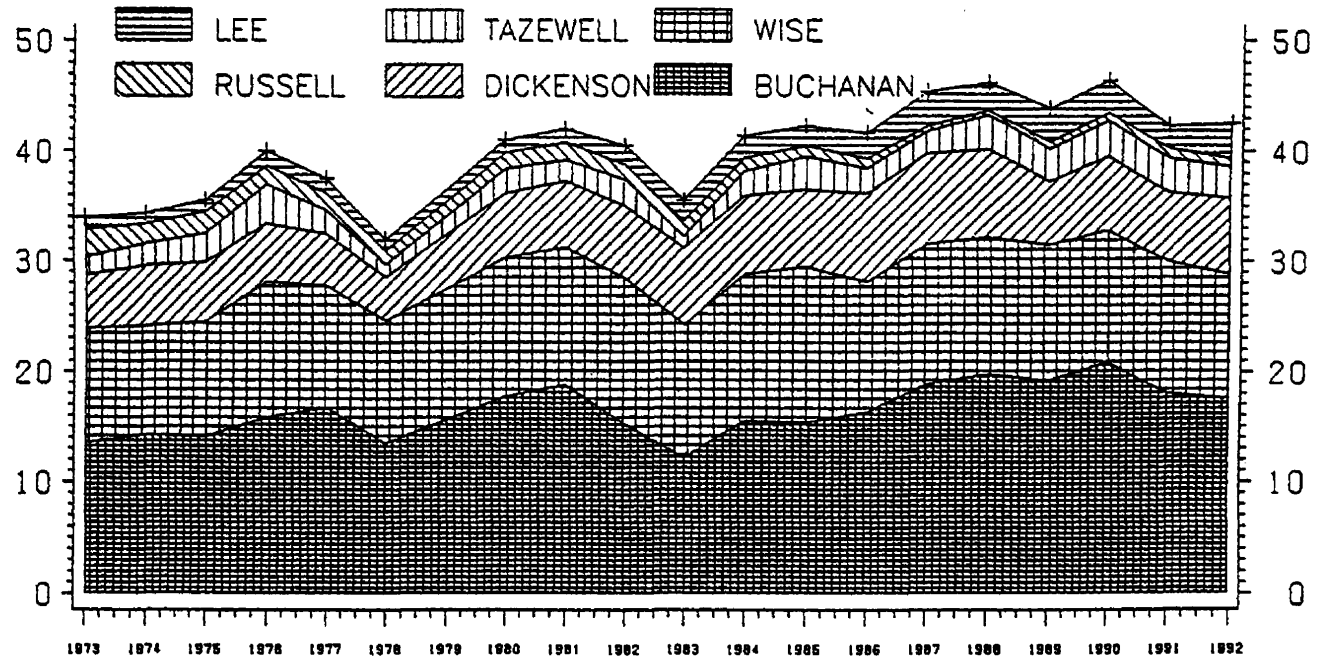
Outlook, 1995-2000: some signs of improvement

- New state markets: Clover 1 (1995), Clover 2 (1996)
- Phase I Clean Air Act: +36 mil. tons Central Appalachia low-S coal (EVA est)

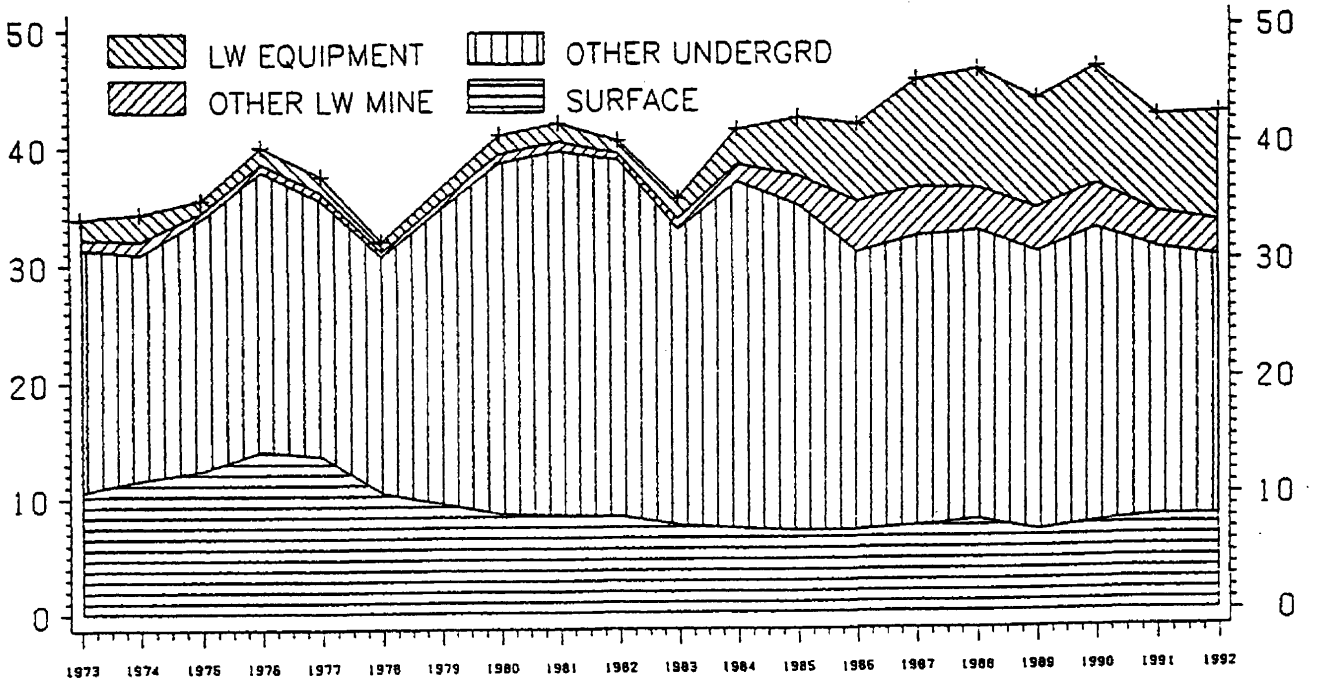
Outlook, >2000: uncertain, some signs of decline

- Phase II CAA: not much additional effect on Central Appal. coal
- uncertainty about natural gas prices, nuclear, environmental regs.
- for what markets do exist, Virginia coal, with its relatively weak reserve base, may be less competitive with eastern Kentucky and southern West Virginia.

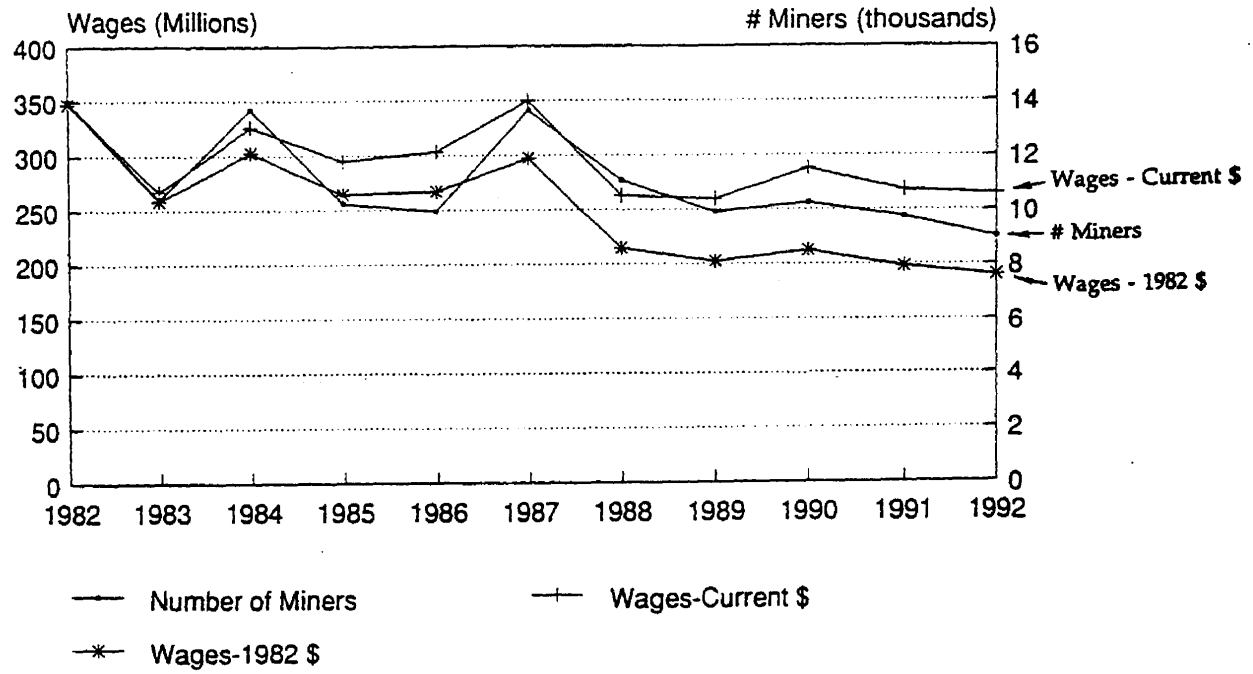
COAL PRODUCTION IN VIRGINIA BY COUNTY, 1973–1992



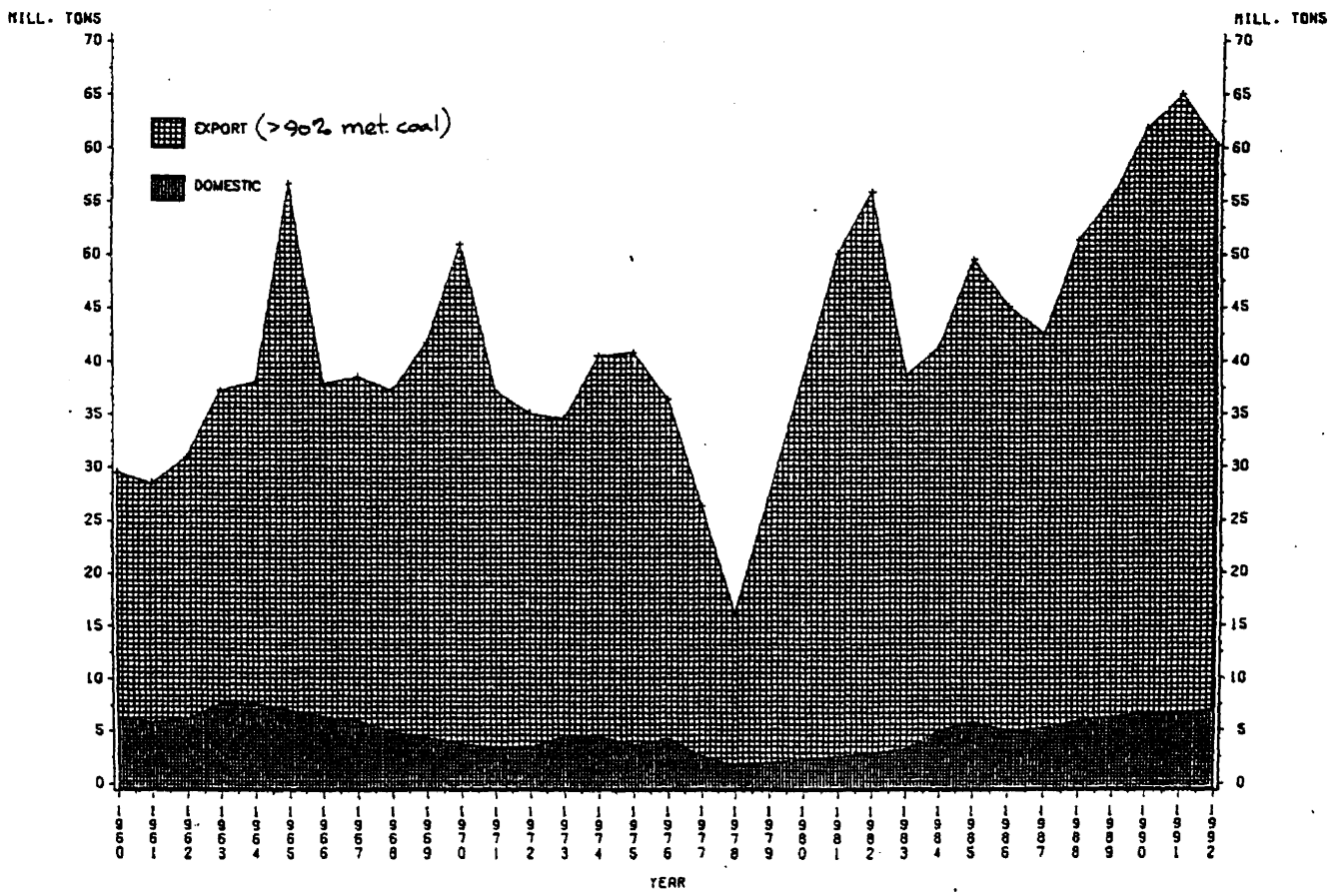
COAL PRODUCTION IN VIRGINIA BY MINING METHOD, 1973–1992



Number of Miners, Production Wages (1982-92)



HAMPTON ROADS COAL SHIPMENTS, 1960–1992



Appendix B

Presentation to the Virginia Coal and Energy Commission November 29, 1993

John Randolph
Virginia Center for Coal and Energy Research

1. **Questions raised at June 28, 1993, Commission Meeting:**

   a. **Are there data on mining jobs moving out of the Commonwealth to other states where operating costs may be lower?**

   There appears to be some anecdotal information on movement on the part of some operators which mine in Virginia and other states, but aggregate data do not show any clear trends. The first three attached pages give production and employment information for Central Appalachia counties. In terms of production, all three states gained in 1990, led by southern West Virginia's 15% increase; Virginia's production rose 10% and eastern Kentucky 4%. Between 1990 and 1992, Virginia's production declined by 10%, while production in southern West Virginia dropped 4% and eastern Kentucky 8%. For the first ten months of 1993, Virginia is even, while southern West Virginia is down 12% and eastern Kentucky is down 4%.

   In terms of employment, all three states held about even in number of miners when production increased in 1990 (Virginia was down 0.3%, West Virginia was up 0.3% and eastern Kentucky was up 1%). All three states have lost miners since; from 1990 to 1992, Virginia mine employment dropped 12%, West Virginia 12%, and eastern Kentucky 22%.

   b. **Have social services and related costs associated with communities loss of mining jobs been quantified?**

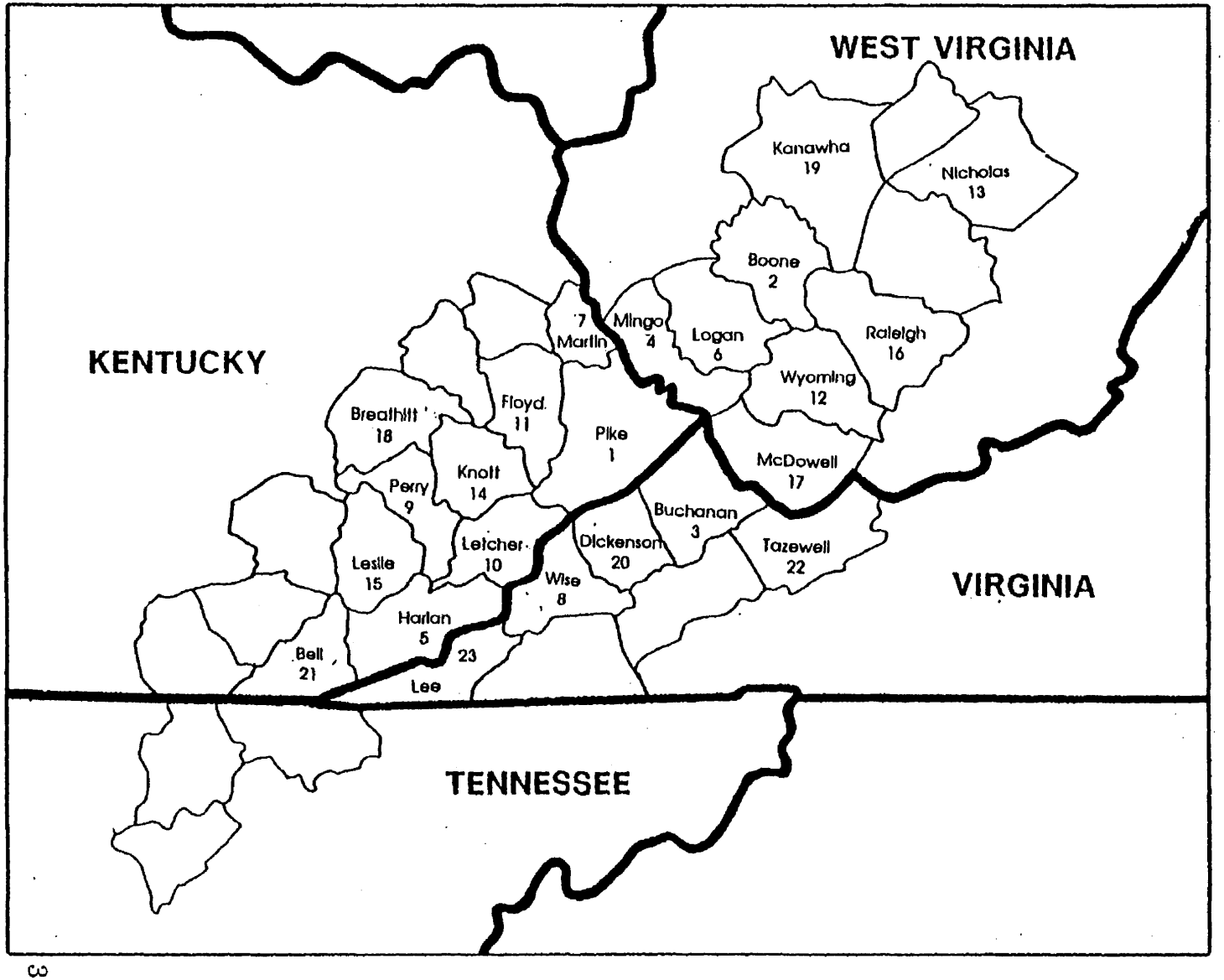
   These costs have not been quantified, but there are indicators that social services costs have gone up. The Center for Public Service at the SEED Center at Clinch Valley College, did a study of government transfer payments (GTP) as a percent of county income for the coalfield counties. GTP include welfare, social security, unemployment, food stamps, and ADC payments. Data were available for 1980 and 1987 only.

   These data and mine employment data are shown on the last page of this packet. Whereas GTP as Percent of Income for the state as a whole decreased from 17.6% in 1980 to 16.6% in 1987, the coalfield counties increased from 20.1% to 23.1%. As this measure increased by 15% in the coalfield counties from 1980 to 1987, the number of miners decreased by 18%. The data reveal a negative correlation between mine employment and GTP as Percent of Income for all counties during this period except Dickenson.

2. **Update on Virginia Coal Export Plan (SJR 208).**

Procedure: The plan is being developed by the Department of Economic Development, in cooperation with the Virginia Center for Coal and Energy Research and Department of Mines, Minerals and Energy. DED is using its International Market Planning (IMP) program to produce the draft plan. For this study, IMP employs a team of five MBA students at Virginia Tech working under the head of Tech's Department of Marketing. The team has presented draft reports to DED and VCCER participants, and will present its final draft on December 3. The department participants will then edit the draft into the final legislative report.

Figure 2-5: Central Appalachia Coal Production

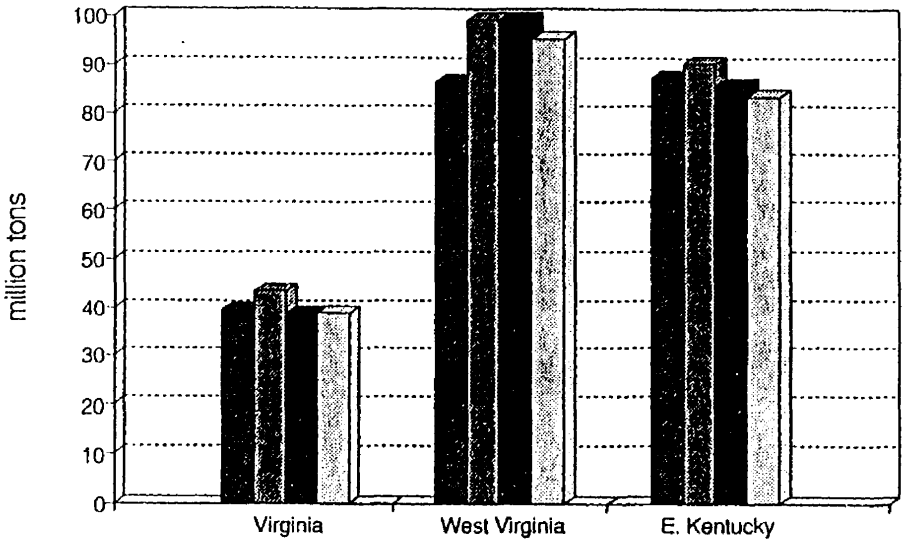


Top Coal Producing Counties In Central Appalachia, 1989

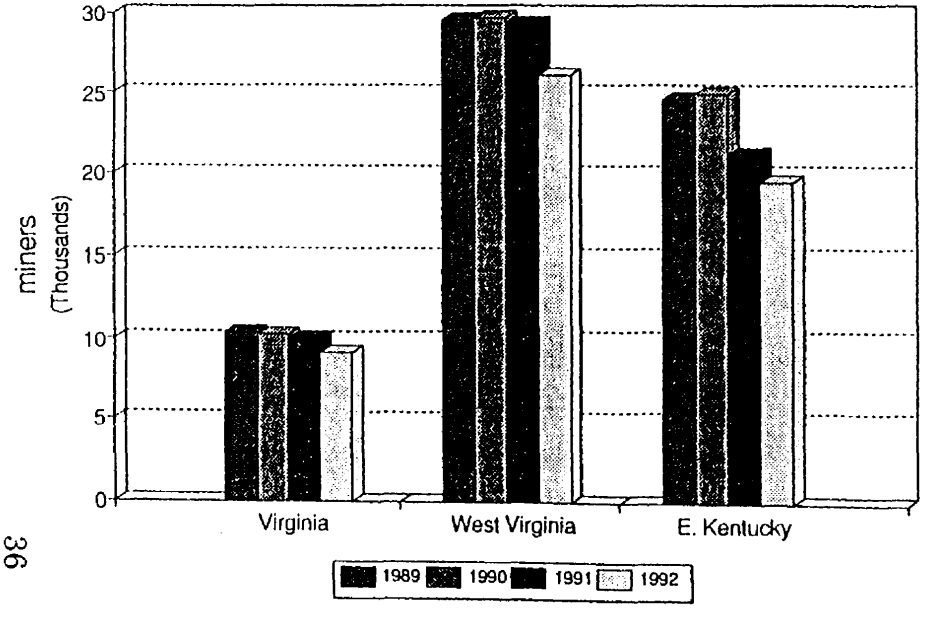
Rank	County	1989 Production (1000 T)
1.	Pike Co., Ky	29,204
2.	Boone Co., WV	22,945
3.	Buchanan Co., VA	19,005
4.	Mingo Co., WV	17,745
5.	Harlan Co., KY	14,162
6.	Logan Co., WV	13,484
7.	Martin Co., KY	12,772
8.	Wise Co., VA	11,928
9.	Perey Co., KY	11,173
10.	Letcher Co., KY	10,100
11.	Floyd Co., KY	9,767
12.	Wyoming Co., WV	9,077
13.	Nicholas Co., WV	8,698
14.	Knott Co., KY	8,633
15.	Leslie Co., KY	8,317
16.	Raleigh Co., WV	7,791
17.	McDowell Co., WV	6,766
18.	Breathitt Co., KY	6,199
19.	Kanawha Co., WV	6,160
20.	Dickenson Co., VA	5,819
21.	Bell Co., KY	4,744
22.	Tazewell Co., VA	2,723
23.	Lee Co., VA	2,479
24.	Magoffin Co., KY	2,259
Total Production		264 mill

Source: U.S. EIA, *Coal Production*, 1989

Virginia, W. Virginia, E. Kentucky
Coal Production 1989-1992 (selected co)



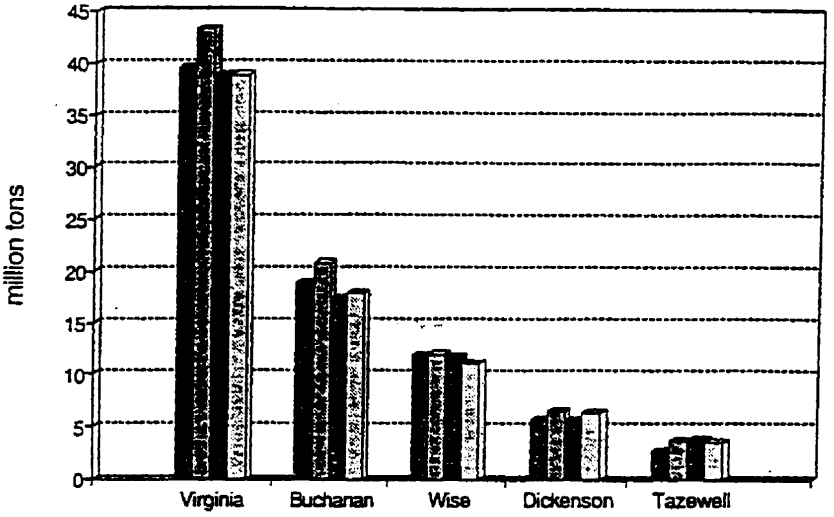
Virginia, W. Virginia, E. Kentucky
Coal Miners 1989-1992



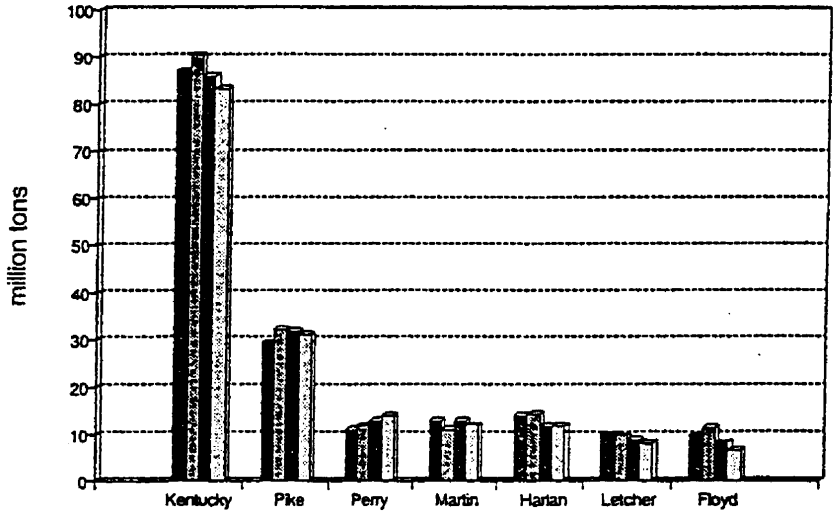
Central Appal. Coal Production
(selected counties)

	1989	1990	1991	1992
PRODUCTION (Thousand Tons)				
Virginia	39475	43256	38860	38826
Buchanan	19005	20877	17389	17903
Wise	11928	11990	11721	11060
Dickenson	5819	6673	5829	6336
Tazewell	2723	3716	3921	3527
West Virginia	86506	99190	98984	95289
Mingo	17745	23506	25804	24867
Boone	22945	25659	25442	24708
Logan	13484	17535	18154	17946
Wyoming	9077	9447	8622	8431
Raleigh	7791	8096	7737	7358
Nicholas	8698	8662	7125	6220
McDowell	6766	6285	6100	5759
Kentucky	87178	90435	85988	83441
Pike	29204	32002	31635	30926
Perry	11173	12038	12820	14114
Martin	12772	11033	12798	12036
Harlan	14162	14334	11678	11762
Letcher	10100	9736	8805	8015
Floyd	9767	11292	8252	6588
MINERS				
Virginia	10371	10342	10055	9138
West Virginia	29482	29578	29310	26017
E. Kentucky	24620	24912	21129	19419
PRODUCTION (Thousand Tons)				
Virginia	39475	43256	38860	38826
West Virginia	86506	99190	98984	95289
E. Kentucky	87178	90435	85988	83441

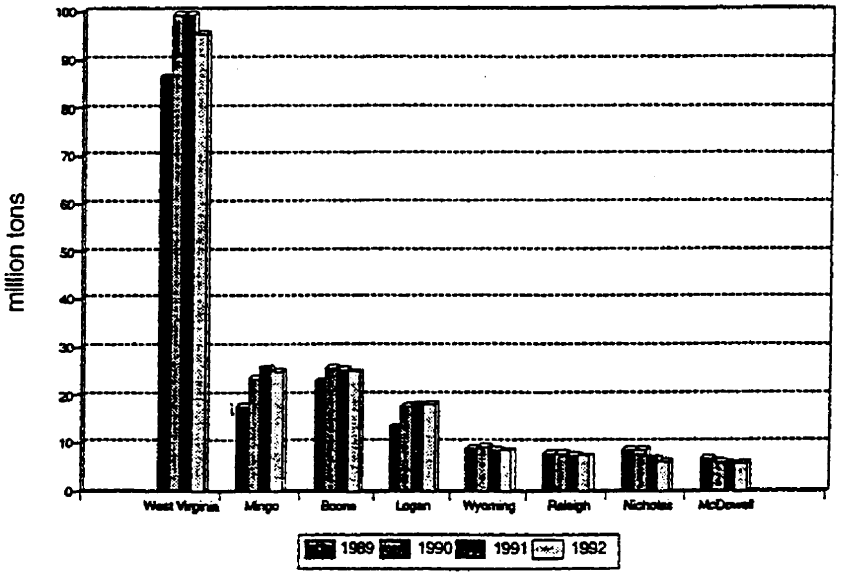
Virginia Coal Production, 1989-1992
selected counties



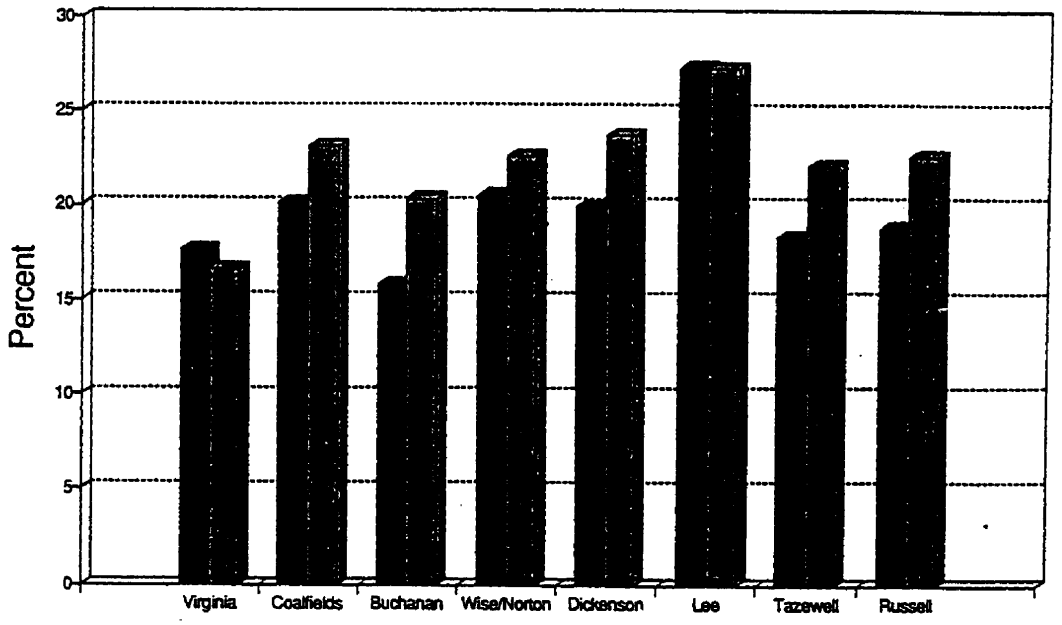
Kentucky Coal Production, 1989-1992
selected counties



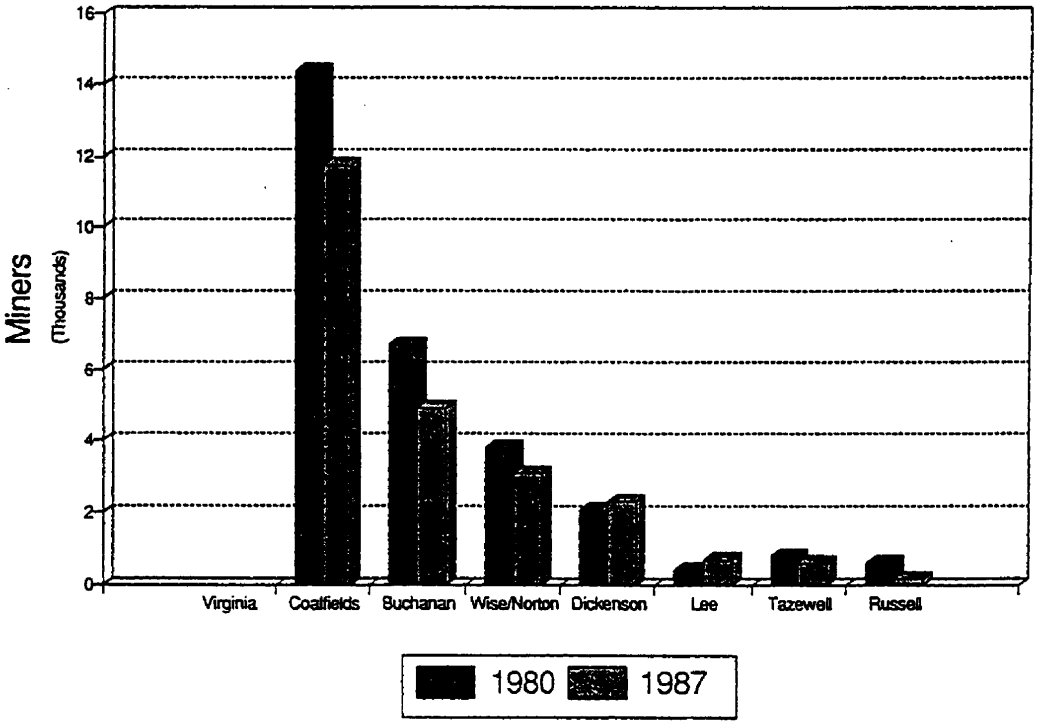
West Virginia Coal Production, 1989-92
selected counties



Govt Transfer Payments as % of Income



Number of Miners



	1980 GTP%	Miners	1987 GTP%	Miners	1980-87 Change GTP%	Miners
Virginia	17.6		16.6		-6%	
Coalfields	20.1	14399	23.1	11767	+15%	-18%
Buchanan	15.8	6700	20.3	4898	+28%	-27%
Wise/Norton	20.5	3805	22.6	3089	+10%	-18%
Dickenson	19.9	2070	23.7	2296	+19%	+11%
Lee	27.3	431	27.2	698	-1%	+60%
Tazewell	18.3	786	22.1	590	+20%	-25%
Russell	18.8	596	22.6	146	+20%	-75%

Appendix C

Virginia Coal Export Plan
Study Conclusions

- What is good for Hampton Roads coal exports is good for Virginia. It is appropriate for Virginia state government to do what it can to enhance Hampton Roads coal exports.

- Several critical factors affecting world coal trade and Hampton Roads market share are beyond the influence of state government.

- Price is the most important factor in world coal trade. Efforts by producers and transporters of coal and governments that regulate and tax them, to mitigate costs will enhance competitiveness.

- Trade agreements between governments have been effective in maintaining coal shipments to certain countries. Such agreements are often justified to rectify trade imbalances or to maintain a reliable supply source.

- Facing increasing difficulty competing on price alone, Hampton Roads exporters may have to employ creative trade packages of coal and related technologies. These may include clean coal technologies and low-sulfur coal in the steam market, and advanced coking technologies or coke in the met market.

- Regarding markets, the metalurgical market will likely continue to be the mainstay and Western Europe will continue to be the primary market opportunity for Hampton Roads coal sales. However, exporters of metallurgical coal must try to maintain a foothold in all markets, including Japan, Korea, and Brasil. And, because the met market is expected to shrink and become more competitive in coming years, especially in Western Europe, Hampton Roads exporters must look increasingly to the growing steam coal market to maintain tonnage. While Eastern European coal trade is now small, this may increase with economic modernization.

Virginia Coal Export Plan
Study Conclusions

• What is good for Hampton Roads coal exports is good for Virginia. It is appropriate for Virginia state government to do what it can to enhance Hampton Roads coal exports.

Findings:

- 37% of Virginia-mined coal is exported from Hampton Roads
- 30% of Hampton Roads exports come from Virginia mines
- All coal shipped from Hampton Roads provides economic benefits to the state from rail transport and port operations
- Estimated 1992 Virginia economic benefits from coal exports: $2.4 billion

• Several critical factors affecting world coal trade and Hampton Roads market share are beyond the influence of state government.

These include:

- State of the global economy (more growth, more trade)
- Implementation of advanced coke-making and steel-making technologies (advances will diminish market for met coal)
- Relative prices of competitors, Australia and Canada in the met market; and Australia, South Africa, former USSR, Poland, and new-comers Columbia, Indonesia, and China in the steam market (lower prices, more competition)
- Fate of subsidies for coal production in Britain, Germany (trade increase if subsidies decrease)
- Environmental regulations in importing countries (stricter controls may diminish coal market or enhance market for clean coal and technologies)

• Price is the most important factor in world coal trade. Efforts by producers and transporters of coal and governments that regulate and tax them, to mitigate costs will enhance competitiveness.

• Trade agreements between governments have been effective in maintaining coal shipments to certain countries. Such agreements are often justified to rectify trade imbalances or to maintain a reliable supply source.

• Facing increasing difficulty competing on price alone, Hampton Roads exporters may have to employ creative trade packages of coal and related technologies. These may include clean coal technologies and low-sulfur coal in the steam market, and advanced coking technologies or coke in the met market.

• Regarding markets, the metalurgical market will likely continue to be the mainstay and Western Europe will continue to be the primary market opportunity for Hampton Roads coal sales. However, exporters of metallurgical coal must try to maintain a foothold in all markets, including Japan, Korea, and Brazil. And, because the met market is expected to shrink and become more competitive in coming years, especially in Western Europe, Hampton Roads exporters must look increasingly to the growing steam coal market to maintain tonnage. While Eastern European coal trade is now small, this may increase with economic modernization.

Findings:

- 81% of Hampton Roads exports go to the met market, 19% to the steam market
- Western Europe accounts for 60% of met, 98% of steam, and 67% of total coal exports from Hampton Roads; H.R. supplies 54% of Western Europe's met coal imports
- Met coal to Japan is now 10% of H.R. exports, to Brazil 9%, to Korea 5%.
- Global met market is expected to drop 10% by 2000 and more dramatically by 2010 because of expected advances is coke-making and steel-making technologies
- Australia, which has a 40% share of the world met market and 25% of the European market, is expected to capture more than half of the world market and nearly half of the European market over the next decade.
- Global steam market is now 35% more than the met market, expected to grow considerably.

Appendix D

Preliminary

VIRGINIA COAL EXPORT STUDY RECOMMENDATIONS SJR 208

January 11, 1994

1. Conduct a Governor's Symposium with leaders of the coal industry and related coal industries to (1) review the findings of the study required by SJR 208 related to international markets for Virginia coal; (2) receive advice on the appropriate role of the Commonwealth in promoting coal exports; (3) determine federal and state regulations, tax policies, and other factors affecting the sale of Virginia coal and recommend executive action to minimize regulations that constrain trade; (4) discuss emerging technological advancements and ecological issues in Virginia's major coal export markets. This proposed Governor's Symposium would be coordinated by the Virginia Department of Economic Development with assistance by the Virginia Center for Coal and Energy Research, the Virginia Port Authority, and the Virginia Department of Mines, Minerals and Energy.

2. Introduce a joint resolution during the 1994 Session of the General Assembly requesting the Virginia Congressional Delegation to encourage and work for the export of United States coal to offset the current, dramatic trade imbalances with selected foreign governments, including Japan.

3. Advocate through the Governor's Office to the President and the U.S. Secretary of Commerce, for the export of United States coal to offset the current dramatic trade imbalances with selected foreign governments, including Japan.

4. Encourage the development of state and national strategies to export combined packages of coal, coal-use technology, and coal equipment through a consortia of Virginia agencies and the National Coal Council, the U.S. Secretary of Energy, and the U.S. Department of Energy, for market opportunities including Eastern Europe.

5. Encourage and promote the use of export financing programs available through the Virginia Department of Economic Development's Small Business Financing Authority. These pre-export working capital and credit guarantee programs of the Export-Import Bank of the United States, accessed through the Financing Authority could be used to help smaller technology and equipment suppliers develop competitive export pricing deals for their goods and services.

Appendix E

COMMONWEALTH OF VIRGINIA

FRANK W. NOLEN
ASSISTANT MAJORITY LEADER
24TH SENATORIAL DISTRICT
AUGUSTA, HIGHLAND, ROCKBRIDGE,
BUENA VISTA, LEXINGTON, STAUNTON
WAYNESBORO, ROCKINGHAM, SOUTHEASTERN PART
P.O. BOX 13
NEW HOPE, VIRGINIA 24469

SENATE

COMMITTEE ASSIGNMENTS:
REHABILITATION AND SOCIAL SERVICES, CHAIRMAN
AGRICULTURE, CONSERVATION AND NATURAL RESOURCES
COMMERCE AND LABOR
EDUCATION AND HEALTH
RULES

January 27, 1994

The Honorable George F. Allen
Governor
Capitol Building
Richmond, Virginia 23219

Dear Governor Allen:

It is my honor and privilege to have been elected chairman of the Virginia Coal and Energy Commission at its meeting on January 11, 1994. On behalf of the Commission, I respectfully wish to draw to your attention two issues of importance to the Commission.

First, the Commission received a report at its last meeting from the Virginia Center for Coal and Energy Research and the Department of Economic Development outlining preliminary recommendations pursuant to Senate Joint Resolution 208 (1993). This Resolution requested the Department of Economic Development, in conjunction with the Virginia Center for Coal and Energy Research and the Department of Economic Development, to prepare a comprehensive ten year export plan for Virginia coal. A copy of the preliminary recommendations is enclosed.

The first recommendation calls for a Governor's Symposium with leaders of the coal industry to (1) review the findings of the SJR 208 study related to international markets for Virginia coal; (2) receive advice on the appropriate role of the Commonwealth in promoting coal exports; (3) determine federal and state regulations, tax policies, and other factors affecting the sale of Virginia Coal and recommend executive action to minimize regulations that constrain trade; and (4) discuss emerging technological advancements and ecological issues in Virginia's major coal export markets.

The Governor's Symposium would be coordinated by the Department of Economic Development with assistance from the Virginia Center for Coal and

Energy Research, the Virginia Port Authority, and the Department of Mines, Minerals, and Energy.

The study pursuant to SJR 208 concludes that the direct economic benefits to the Commonwealth from coal exports in 1992 were approximately $2.4 billion. The Coal and Energy Commission believes that coal exports are of vital importance to the economy of the Commonwealth.

Accordingly, the Virginia Coal and Energy Commission has unanimously endorsed the recommended Governor's Symposium. The Commission respectfully requests that you convene the Symposium as soon as may be convenient.

The second issue concerns state funding of the Virginia Center for Coal and Energy Research. The Center, located at Virginia Tech, is established in Article 2.01 (§ 23-135.7:1 et seq.) of Chapter 11 of Title 23 of the Code of Virginia. Since its founding in 1977, the Center has provided valuable assistance to the members of the Commission in its study of energy and coal issues.

From its inception until 1993, the Center's appropriation had been included within the Research Division portion of Virginia Tech's budget. The university had reduced its allocation of funds to the Center in 1989 and subsequent years.

In response to the reductions in funding to the Center, the Coal and Energy Commission unanimously recommended at its January 1993 meeting that the Commonwealth's budget be amended to establish a "line item" for the Center. The Commission's effort was successful, and the 1993 budget bill (Chapter 994 of the 1993 Acts of Assembly) included an amendment adding a provision that the total appropriation for Virginia Tech's Research Division includes $150, 031 from the general fund each year for the Center.

The members of the Commission were disturbed to learn at our January 11 meeting that the state budget submitted by your predecessor eliminates the general fund appropriation for the Center for Coal and Energy Research. The loss of these funds will curtail the ability of the Center to continue to provide valuable services to the Commission as well as to the citizens of the Southwest and other regions of the Commonwealth.

All of the members of the Commission join me in requesting that you work with us in restoring the general fund appropriation for the Virginia Center for Coal and Energy Commission.

Your due consideration of each of these requests is greatly appreciated.

Very truly yours,

Frank W. Nolen
Member, Senate of Virginia

FWN/fdm
Enclosure

cc: Members of the Virginia Coal and Energy Commission

1994 SESSION

LD5731757

SENATE JOINT RESOLUTION NO. 180

Offered January 25, 1994

Requesting that the Virginia Congressional Delegation work to increase exports of United States coal.

Patrons—Wampler and Reasor; Delegates: Jackson, Johnson, Kidd, Kilgore and Stump

---

Referred to the Committee on Rules

WHEREAS, the United States incurred a trade deficit in 1992 of $100.1 billion, of which $49.7 billion was with Japan; and

WHEREAS, the trade balance deficit for the first ten months of 1993 was $112.7 billion, of which $49 billion was with Japan; and

WHEREAS, the Japan desk of the U.S. Department of Commerce has reported that the projected trade deficit with Japan for 1993 will be $58 billion, which would be the largest deficit with Japan in history; and

WHEREAS, a large, sustained negative balance of trade is detrimental to the economies of both the Commonwealth and the nation; and

WHEREAS, the economic benefit to the Commonwealth from coal exports through Hampton Roads is $2.4 billion annually; and

WHEREAS; increasing exports of coal to those foreign countries with which the United States has a substantial trade imbalance will benefit the economy of the Commonwealth both directly, through the mining, processing, and transporting of Virginia coal, and indirectly, by reducing the stifling trade deficits; and

WHEREAS, Congress can influence the trade policies of the United States in ways that will encourage the exporting of coal by working to remove foreign trade barriers and to enact beneficial trade agreements; now, therefore, be it

RESOLVED by the Senate, the House of Delegates concurring, That the Virginia Congressional Delegation be requested to work to increase exports of United States coal; and be it

RESOLVED FURTHER, That the Clerk of the Senate transmit copies of this resolution to the members of the Virginia Delegation to the United States Congress that they may be apprised of the sense of the Virginia General Assembly in this matter.

Official Use By Clerks	
Agreed to By The Senate	**Agreed to By The House of Delegates**
without amendment ☐	without amendment ☐
with amendment ☐	with amendment ☐
substitute ☐	substitute ☐
substitute w/amdt ☐	substitute w/amdt ☐
Date: _____	Date: _____
Clerk of the Senate	Clerk of the House of Delegates

Budgets - 1992 to 1994

Programs	Federal Funds	Oil Overcharge Funds
LIHEAP	$45,000,000	$3,000,000
WAP	$6,743,715	$750,000
ICP	$1,476,633	$2,300,000
SECP/EES	$669,841	$1,700,000

Cumulative Report on the Use of Oil Overcharge Funds

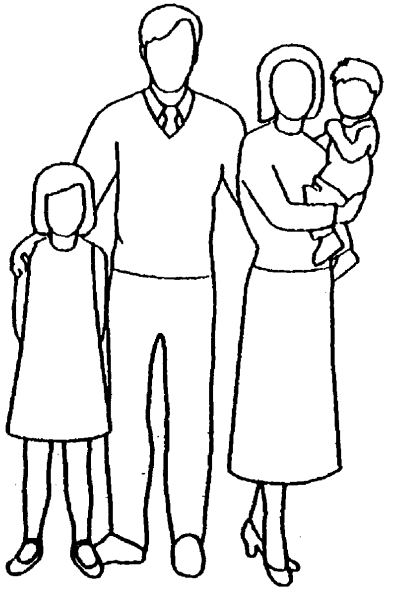
1987 - 1991

LIHEAP	$33,054,050
WAP	$32,858,560
ICP	$7,534,084
SECP/EES	$8,691,735
TOTAL:	**$82,138,429**

Other Projects

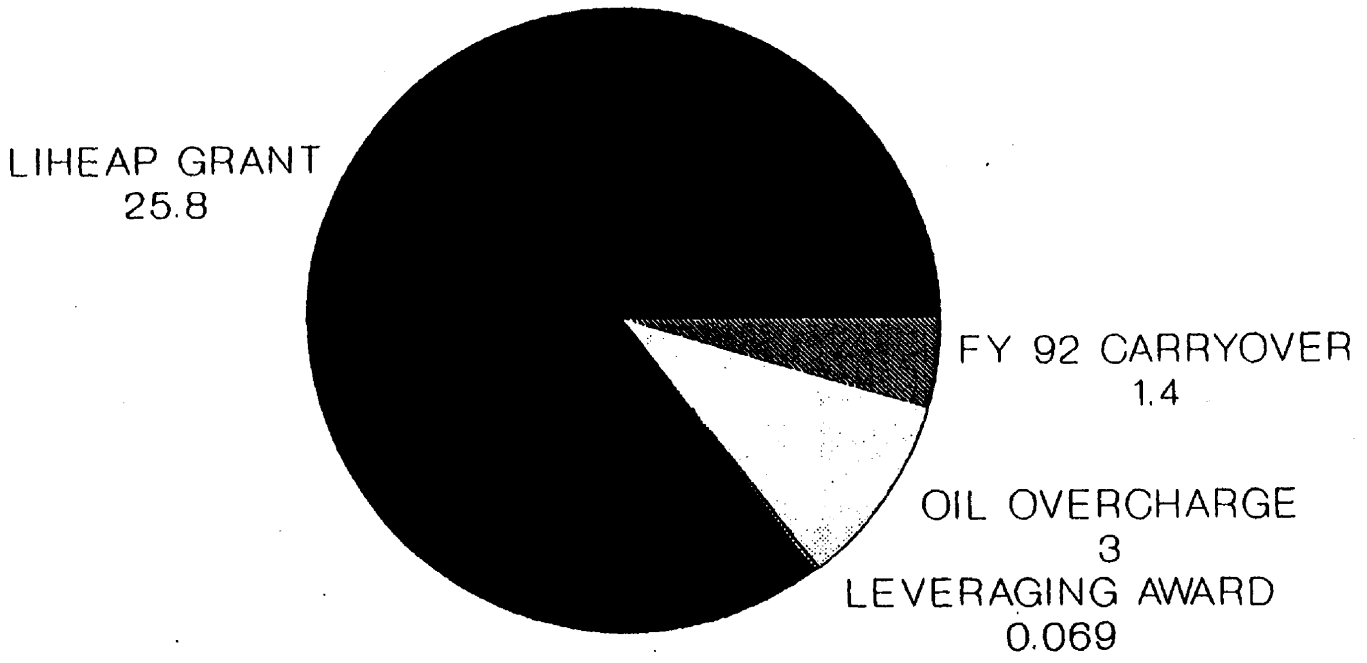
◆ VA Housing Partnership Fund	1987	$20,000,000
◆ Human Services Transportation	1989	$868,237
◆ Mass Transit Capital	1990	$1,748,763
◆ Energy Efficient Transportation for the Handicapped	1991	$500,000
◆ Small Business Revolving Loan	1992	$500,000

LOW INCOME HOME ENERGY ASSISTANCE PROGRAM



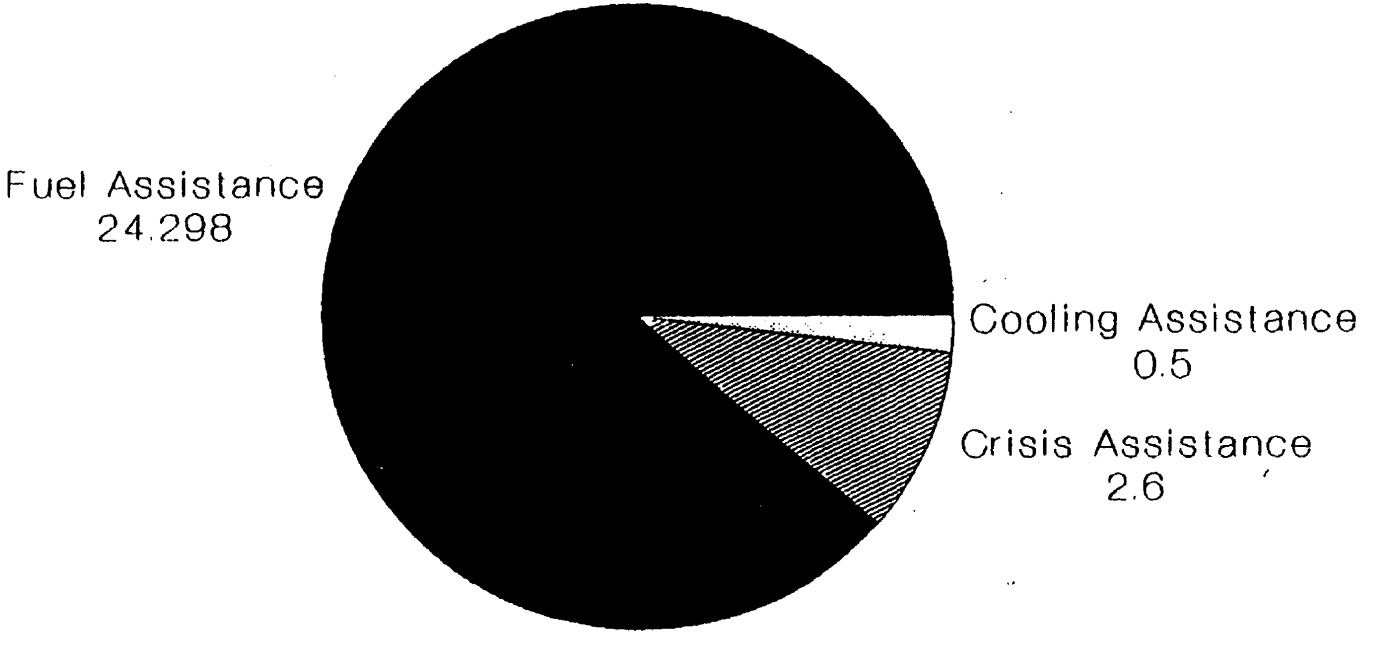
Submitted by Department of Social Services
Division of Benefit Programs
Bureau of Energy and Emergency Assistance

FUNDING SOURCES
FY 92-93



MILLIONS OF DOLLARS

BENEFIT DOLLARS ALLOCATED
FY 92-93



Millions of Dollars

FUEL ASSISTANCE
POPULATION

PURPOSE: Provides supplemental assistance to eligible households to assist in paying the costs of residential energy

Fiscal Year	92-93	91-92	90-91	89-90
HH's Served	124,763	109,964	112,104	112,579
Persons Served	322,773	280,623	286,428	289,097
Percent of HH's Containing:				
Elderly Person	30.7	33.0	33.5	34.0
Disabled Person	19.3	30.7	27.4	27.1
Children Under 16	50.3	48.2	49.0	49.3
Approval Rate	90.4	89.9	87.3	87.4

BENEFIT AMOUNTS
FUEL ASSISTANCE SUMMARY

Fiscal Year	92-93	91-92	90-91	89-90
Average Benefit	$195	$261	$286	$270
Minimum Amount	$32	$107	$19	$12
Maximum Amount	$311	$392	$486	$620

BENEFIT DOLLARS PAID

FY 92-93	$24,317,772
FY 91-92	$28,736,553
FY 90-91	$32,065,381
FY 89-90	$30,377,317

CRISIS ASSISTANCE PROGRAM

PURPOSE: To assist households with energy related, weather related or supply shortage emergencies that cannot be met by Fuel Assistance or other local resources

ELIGIBILITY CRITERIA: Must meet income, resource and citizenship criteria for Fuel Assistance; have a heating emergency; and other community resources cannot meet the need

ASSISTANCE PROVIDED:

Maximum Benefit of $200

- Repair of inoperable or unsafe heating equipment
- Purchase of supplemental heating equipment
- Necessary maintenance cost
- Payment of electric bill once every five years when electricity is needed to operate the heating equipment
- Payment of heat-related security deposit (once per lifetime per fuel type)
- Purchase primary fuel or pay to prevent disconnection of primary heat source
- Emergency shelter when there is no heat in the house and expected temperature warrants heat
- Purchase portable space heaters for temporary use

Maximum Benefit of $700

- Purchase, replace, rebuild heating equipment (vented space heater or furnace)

CRISIS ASSISTANCE
POPULATION

Fiscal Year	92-93	91-92	90-91	89-90
HH's Served	13,689*	14,586	9,403	8,582
Persons Served	38,565	43,465	28,445	26,097
Percent of HH's Containing:				
Elderly Person	12.4	12.2	14.1	17.1
Disabled Person	14.7	16.3	18.9	21.6
Children Under 16	60.1	64.0	66.5	65.3
Approval Rate	86.1	87.0	84.8	83.1

* Households who received assistance to purchase primary fuel in FY 91-92 Program were mailed an application to apply for Fuel Assistance benefits.

COOLING ASSISTANCE

PURPOSE: To prevent or alleviate cooling emergencies by assisting persons who are in critical medical need of cooling when it is hot

ELIGIBILITY CRITERIA: Must meet income and resource criteria for Fuel Assistance; verified critical medical need for cooling; other resources cannot meet the need

ASSISTANCE PROVIDED:

Maximum amount of $200

Repairing, renting a fan or air conditioner
Installing a fan or air conditioner
Purchasing a fan
Rewiring
Paying an electric bill
Paying an electric security deposit

Maximum amount of $400

Purchase an air conditioner

PROGRAM IS OPTIONAL

PROGRAM BEGINS NO EARLIER THAN JUNE 15 AND ENDS NO LATER THAN AUGUST 31

COOLING ASSISTANCE
POPULATION

Fiscal Year	92-93	91-92	90-91	89-90
HH's Served		2,954	2,565	1,707
Persons Served		7,273	6,155	4,051
Percent of HH's Containing:				
Elderly Person		38.5	41.4	45.2
Disabled Person		56.8	53.8	54.3
Children Under 16		43.4	40.8	39.5
Approval Rate		78.8	76.3	75.3

BENEFIT AMOUNTS
CRISIS/COOLING ASSISTANCE SUMMARY

CRISIS ASSISTANCE

Fiscal Year	92-93	91-92	90-91	89-90
Average Benefit	$196	$191	$223	$241
Maximum Amount	$700	$700	$700	$700

BENEFIT DOLLARS PAID

FY 92-93	$2,644,825	FY 91-92	$2,791,548
FY 90-91	$2,097,825	FY 89-90	$2,083,419

COOLING ASSISTANCE

Fiscal Year	92-93	91-92	90-91	89-90
Average Benefit		$229	$225	$240
Maximum Benefit	$400	$400	$400	$400

BENEFIT DOLLARS PAID

FY 92-93		FY 91-92	$677,595
FY 90-91	$576,113	FY 89-90	$408,841

ESTIMATED FUNDING
FY 93-94

LIHEAP GRANT	$ 29,456,000.00 *
OIL OVERCHARGE	0.00
LEVERAGING AWARD	53,899.00
CARRYOVER	0.00
	$ 29,509,899.00

* Includes $1,368 Mil for FY 95

FUNDING COMPARISON

	FY 93-94	FY 92-93	FY 91-92	FY 90-91	FY 89-90
LIHEA GRANT	$29,456,000	$25,817,067	$28,822,467	$27,650,705	$27,222,229
OVERCHARGE		3,000,000	5,645,365	3,707,031	8,587,327
FEDERAL CONTINGENCY				8,399,937	
LEVERAGING	53,899	69,909			
CARRYOVER		1,425,152	2,233,919	1,185,054	743,803
TOTALS	$29,509,899	$30,312,128	$36,701,751	$36,994,610	$40,501,476

POTENTIAL RESOURCES
FOR ADDITIONAL FUNDING

- UNCLAIMED UTILITY DEPOSITS
- EXPANSION OF AFDC-EA PROGRAM TO COVER SPECIAL NEEDS
- STATE TAX CHECK OFF
- REDUCE ADMINISTRATIVE COSTS BY IMPLEMENTING CENTRALIZED APPLICATION PROCESSING
- GENERAL FUNDS APPROPRIATION

Appendix I

WEATHERIZATION ASSISTANCE PROGRAM

Coal and Energy Subcommittee

* **BENEFITS OF THE PROGRAM:**

1991 - 1992:

$7,900,000	available funds
$5,200,000	spent
$2,700,000	carryover into 1992 - 1993
$1,434	per unit average (all funds)
5.0%	State Administration (including training and monitoring contract)
$ 400,000	reported leveraged funds to support the program
3,627	total households
1,429	households with elderly
808	households with handicapped
9,354	total people

1992 - 1993:

$6,400,000	available (includes $2.7M of carryover)
$5,300,000	spent
$1,100,000	carryover into 1993 -1994
$1,851	average cost per unit (all funds)
4.5%	State Administration (including training and monitoring contract)
$850,000	reported leveraged funds to support the program
2,880	total households
1,380	households with elderly
800	households with handicapped
1,337	households with children
7,159	total people

* **SIGNIFICANT CHANGES HAVE BEEN MADE TO THE PROGRAM AS A RESULT OF THE EVALUATION CONDUCTED BY THE VIRGINIA CENTER FOR COAL AND ENERGY RESEARCH IN 1988 - 1989:**

Prior to Evaluation, installed measures resulting in 10% savings, with a simple payback time of 21 - 53 years. After Evaluation, installing measures resulting in 25% or greater savings (reviews of client bills are showing heating season savings of 30% to 70%), with a simple payback time of 8 - 12 years (or less). This is by comparison to the U. S. Department of Energy national evaluation of the Program with preliminary results of 18.3% energy savings of space heat.

VCCER Evaluation of the Virginia Weatherization Program

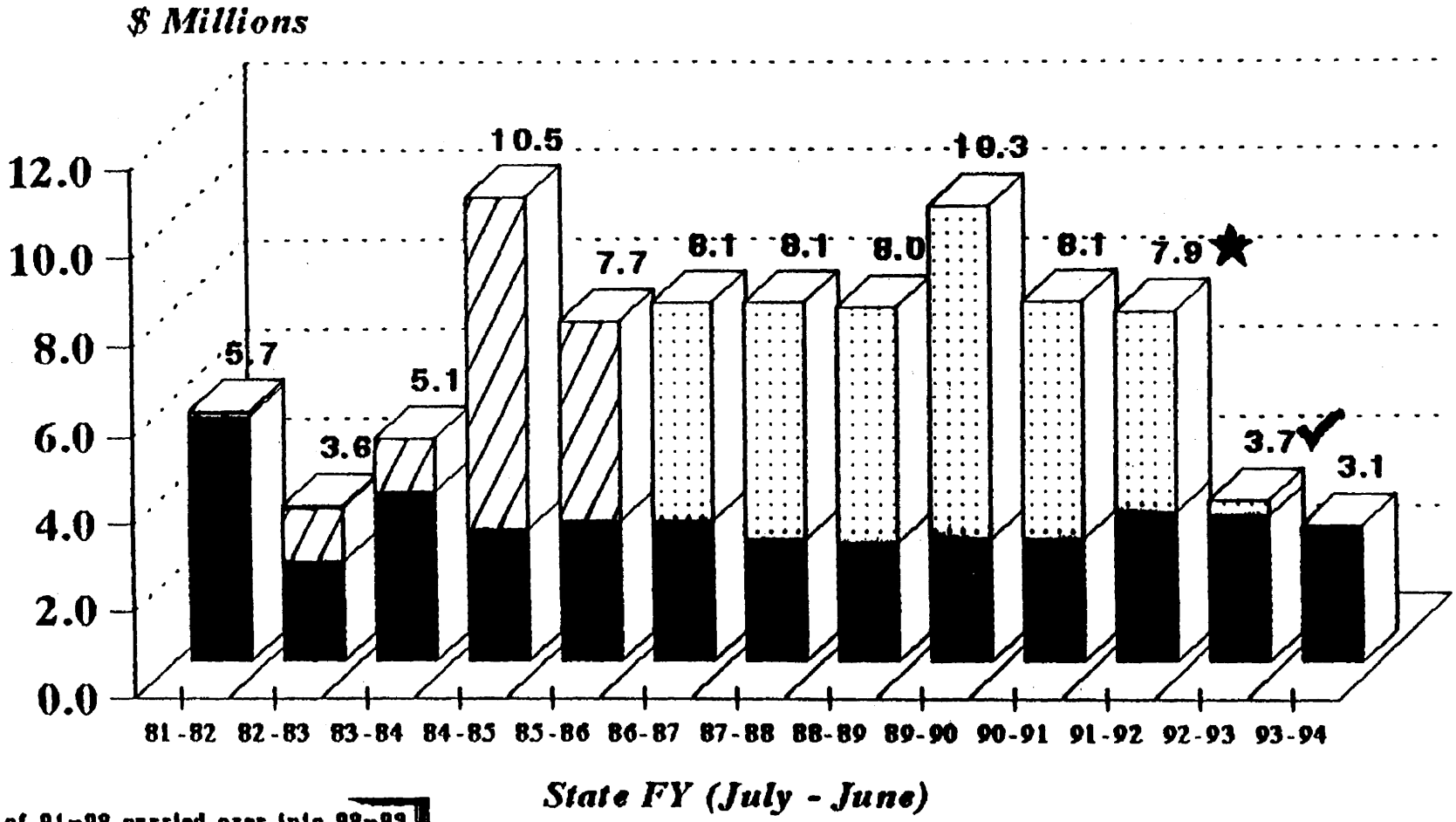
TABLE 3-11 RELATIVE COST EFFECTIVENESS OF WEATHERIZATION MEASURES

Wx Measure	Measure-Specific Assumptions	Savings ($/yr)	Cost ($)	SPT (yrs)	BCR	CCE ($/MBTU)
Attic Insulation	R-4 to R-30 No inf. savings Cost = $0.40/ft2 Area = 1250 ft2 Lifetime = 25 years	$230	$500	2.2	5.4	$2.40
Sidewall Insulation	No inf. savings Cost = $0.80/ft2 Area = 1100 ft2 Lifetime = 25 yrs	$173	$880	5.1	2.3	$5.70
Advanced Air Sealing	30% reduction in initial ACH of 1.5 Volume = 10,000 ft3 Lifetime = 10 yrs	$89	$300	4.3	1.6	$8.10
Storm Windows	No inf. savings Cost = $6/ft2 Area = 100 ft2 Lifetime = 15 yrs	$33	$600	18	0.5	$26.00
Replacement Windows	No inf. savings Cost = $14/ft2 Area = 100 ft2 Lifetime = 20 yrs	$45	$1,400	31	0.3	$38.20

Assumptions for all measures:
- Real discount rate = 7%
- Value of energy saved = $13/MBTU
- Heating degree days = 4200
- "Average" installed costs
- Cd = 0.65

APPROPRIATION PATTERNS

(Excludes any carryover from previous years)



★ $2.7M of 91-92 carried over into 92-93 to transition reduced funding, not included in 92-93 appropriation.

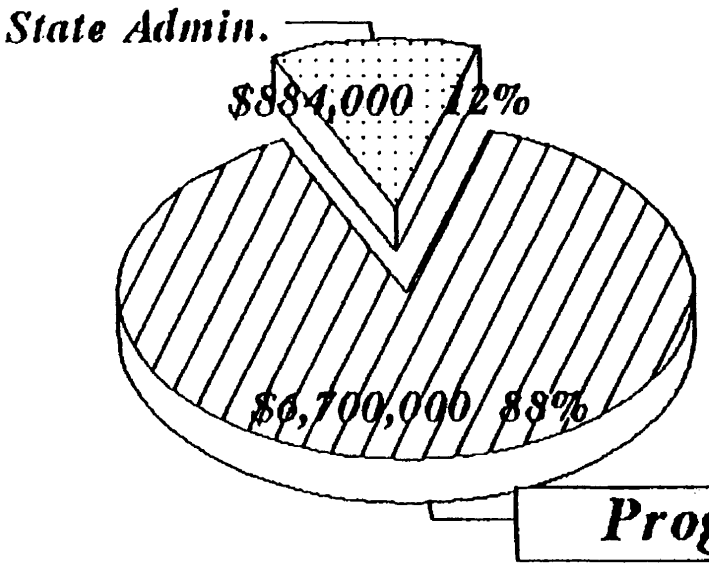
✓ $1.0M of 92-93 planned for carryover into 93-94 to transition reduced funding not reflected in 93-94 appropriation.

DOE IIHS PVE State

Department of Housing & Community Development

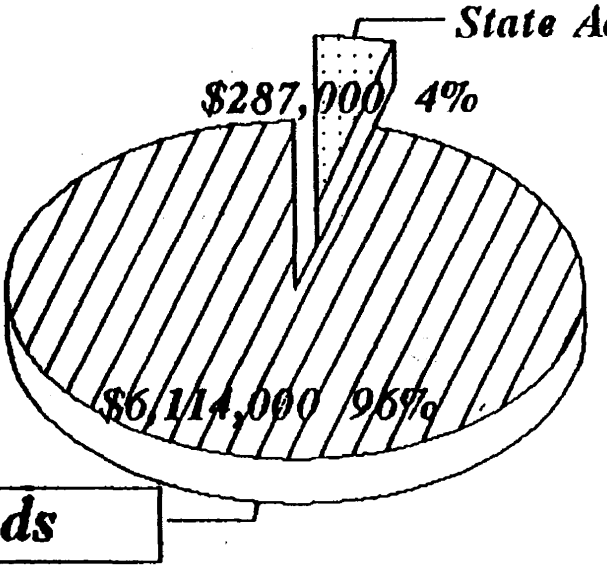
STATE ADMINISTRATIVE EXPENDITURES
as a percentage of total funds spent

July 1990 - June 1991



Source: VACAA reports to DSS
Excludes DSS Administration.

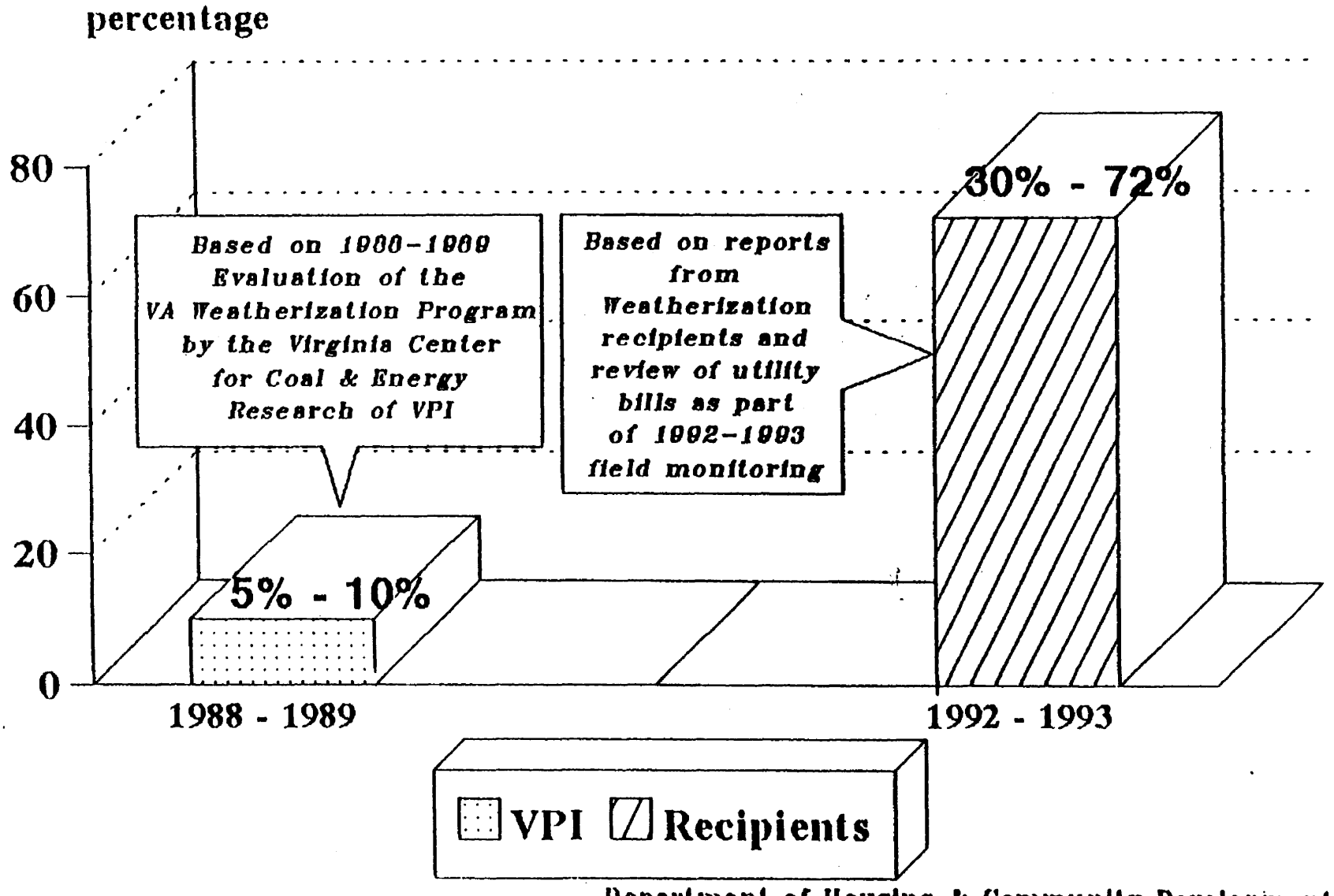
July 1991 - June 1992



Source: DHCD reports to DOE.

Programmatic Funds

SPACE HEAT
energy savings for WAP recipients



WAP ELIGIBLE HOUSEHOLDS UNSERVED

1981 - April 1, 1993

- **Total Eligible - 293,824**

Source: 1990 Census and U.S. Department of Energy

- **Total Served - 74,116 *or 25%***

Source: Reports to DOE

- **Total Unserved - 219,708 *or 75%***

★ Adjusted for eligible persons living in public housing.

WAP ELIGIBLE PERSONS UNSERVED

1981 - April 1, 1993

- **Total Eligible - 720,821**

  Source: 1990 Census

- **Total Served - 135,433 *or 19%***

  Source: Reports to DOE

- **Total Unserved - 585,388 *or 81%***

★ Adjusted for eligible persons living in public housing.

Appendix J

Information on the Weatherization Assistance Program
Prepared for the November 29, 1993
Coal and Energy Commission/Energy Preparedness Subcommittee

Background:

Since 1976, the U. S. Department of Energy (DOE) has operated the low-income Weatherization Assistance Program (WAP) which strives to increase energy efficiency of dwellings occupied by low-income persons in order to reduce their energy consumption, lower their fuel bills, increase the comfort of their homes, and safeguard their health. It targets vulnerable groups including the elderly, people with disabilities, families with children, and families in such crises as no heat or unsafe heat. In Virginia, the WAP is managed by the Department of Housing and Community Development and statewide assistance is provided locally through twenty-five private and public non-profit organizations and local governments.

The Virginia WAP provides weatherization assistance through safety inspections of heating systems (to appraise and improve safety and energy efficiency); blower door directed air sealing of the dwelling's thermal envelope; sealing and insulating duct work; insulating sidewalls through the dense pack application of cellulose, insulating domestic water heaters and insulating the belly board cavities on mobile homes. One third of the units weatherized statewide require corrections to an unsafe or inoperable heating system. A blower door directed final inspection is conducted to ensure that indoor air quality concerns and occupant health and safety have not been jeopardized.

As of September 30, 1993, 76,257 households, some 140,225 low-income Virginians, have received weatherization assistance services. Approximately half of the households assisted by the WAP are occupied by elderly and about one third are occupied by disabled individuals.

A major benefit to households served by the program is energy savings. An evaluation of the Virginia WAP conducted by the Virginia Center for Coal and Energy Research reported average savings potential of 17% - 24% and simple payback time of 10 years to 17 years. Unmeasured, client anecdotal information is reporting energy savings of 30% to 70%. Client health and safety also benefit from the program - one third of the units weatherized have required corrections to an unsafe or inoperable heating system.

The WAP network is currently the only provider of these essential services. Virginia's ongoing training program coordinates with the Association of Energy Conservation Professionals to ensure that the program remains on the cutting edge of new technology with emphasis on quality work, program improvement, and innovation. The WAP network is also providing training for private contractors, as well as other federally and state funded housing rehabilitation programs in the most state-of-the-art ways to perform safe, effective energy improvements.

Why Additional Funds Are Needed And How They Will Be Utilized:

Between 1984 and 1992, the Virginia WAP provided assistance to an average of 4,500 households per year with average annual funding of $8.6 million. FY 93 funding for the program was $6.4 million, including the last of the oil overcharge funds, and this funding

assisted 2,880 households. FY 94 funding for the program is $5.2 million and 2,400 households are expected to be assisted.

Based on the current pace of the Weatherization Assistance Program, half of the local WAP administrators will not be able to operate a full 12 months in FY 94 because of funding limitations. The FY 95 WAP will be at or below 50% of the FY 93 funding level which will result in the complete termination of some local programs.

Waiting lists at local WAP administrators range from three months to two years. Households continue to be pushed back on these waiting lists due to the identification of crisis situations where households have unsafe or inoperable heating systems. Over 293,000 (or 74%) of the WAP-eligible households have yet to receive any type of weatherization assistance.

Worsening the situation is the fact that the organizations that administer the WAP are also serving the Low-Income Home Energy Assistance Program (LIHEAP), whose clients, if not previously assisted by the WAP, are automatically referred to the WAP for weatherization assistance. Additionally, the Department of Social Services has contracted with DHCD for the provision of replacement and repair of heating equipment using LIHEAP funds plus WAP and other funds available to the local WAP administrators. In FY 94 DSS and DHCD hope to assist 1,000 low-income households who have no heat.

Attempts have been made to secure non-federal and non-general fund resources for the WAP. In FY 92 local WAP administrators leveraged $400,000 in non-WAP funds to provide additional WAP assistance. In FY 93, this amount rose to over $850,000, including a $150,000 pilot weatherization program in the Roanoke area funded by the Appalachian Power Company. In the first quarter of FY 94 over $288,000 in leveraged funds has been secured. We anticipate that our efforts may raise between $1,000,000 and $1,500,000 per year for FY 95 and FY 96. DHCD is also receiving technical assistance to identify leveraging opportunities with utilities in order to supplement the federal funds.

Funds Needed in FY 94:

In order to enable all local WAP administrators to continue to meet the needs of their clients for the remainder of FY 94, $750,000 is needed in General Fund appropriations to supplement the federal appropriation and the funds leveraged through such other resources as utility demand side management programs, local public and private funds and applicant/owner contributions. This will bring the overall funding level to $6.0 million.

Projected Funds Needed for FY 95 and FY 96:

Projected WAP funding for the FY 95 and FY 96 is limited to a $3,200,000 federal appropriation for each year. These appropriations may require a state match. DHCD has submitted a 1995-1996 budget addendum asking for $1,500,000 per year to support the WAP. Total annual funding of $3,200,000 in federal appropriations, $1,500,000 in general fund appropriations, combined with a projected $1,000,000 to $1,500,000 in leveraged funds, will provide the minimum required budget to ensure continued program viability.

Appendix K

Virginia Division of Energy
Prepared for the Energy Preparedness Subcommittee
Coal and Energy Commission Meeting
November 29, 1993

BACKGROUND

The Virginia Division of Energy was established in 1974 and became part of the Department of Mines, Minerals, and Energy in 1985, when the Department was formed. The Division's mission is to provide for a sustainable energy future for Virginia as detailed in the Virginia Energy Plan and Chapter 26, Section 45.1-390 of the Code of Virginia. This is accomplished by: improving energy efficiency and conservation by state and local governments and their clients; advancing renewable and alternative energy technologies; identifying and developing sound energy policy for Virginia; and serving as Virginia's lead agency in coordinating and implementing the mandates and initiatives detailed in the National Energy Policy Act of 1992.

ACCOMPLISHMENTS

The Division of Energy has historically operated under two federal grant programs; the State Energy Conservation Program (SECP) and the Institutional Conservation Program (ICP). These grants have been supplemented with oil overcharge funds since 1986. The Division currently receives no general funds. From 1986 through 1991, the State Energy Conservation Program has expended approximately $9,000,000 in oil overcharge funds saving an estimated $465,000,000 in energy cost reductions and an estimated 66.3 trillion Btu's in energy savings; and the Institutional Conservation Program has expended approximately $7,000,000 in oil overcharge funds saving an estimated $10,500,000 in energy cost reductions and an estimated 2.1 trillion Btu's in energy savings.

In 1991, the Commonwealth's first, comprehensive Virginia Energy Plan was developed by the Division of Energy and released by executive order number 37. The primary purpose of the plan is to integrate energy efficient practices into the day-to-day lifestyles of all Virginians to accomplish far-reaching fiscal, environmental, and economic benefits. The Virginia Energy Plan encompasses a three-phased approach to change, targeting one group and working through it to each other groups. The first phase enables state government to lead by example. The cornerstone of the plan is a 25% reduction in energy consumption in state agencies by 1998, measured against 1990 consumption levels. Below is a list of major accomplishments over the past year in implementing the Virginia Energy Plan:

Instituting energy management planning in all state agencies through a network of 114 agency energy managers

- Developed a comprehensive energy management planning guide for use by agency energy managers that suggests a full range of strategies for reducing energy consumption in state agencies. The guide was distributed to all State Governors and State Energy Offices.
- Developed and delivered four two-day training workshops for all agency energy managers on energy management.
- Provided guidance to all agency energy managers in the development of energy management plans. To date, we have received 92 agency plans.
- Developed mechanisms which will enable the use of tax-exempt lease financing and performance contracting for energy efficiency projects in state facilities.
- Obtained energy accounting software and trained 71 energy managers on the use of the software package, which enables agencies to track energy conservation accomplishments towards the 25% reduction in consumption by 1998.
- Enabled various state agencies to take advantage of electrical rate changes which will result in a savings of $750,000, annually.
- Worked with DGS to strengthen the energy requirements in the Capital Outlay Manual.
- Administering $1.8 million State Energy Efficiency Grant Program to state agencies to increase the efficiency of lights, motors, and variable speed drives.
- Coordinating agency for state government's EPA Green Lights Partnership, which includes approximately 9 million square feet of state-owned space.
- Awarded grants and provided technical assistance to eight state agencies to demonstrate environmentally sound renewable energy technologies. Leveraged $38,000 from the National Renewable Energy Laboratory.

Increasing the efficient use of energy resources by Local Governments

- Awarded over $1.5 million in matching grants to 50 school and hospital buildings statewide for Cycle XV of the Institutional Conservation Program.
- Awarded six local governments matching grants to participate in a program to convert 74 fleet vehicles to operate on alternative fuels and establish six refueling stations. DE contributed $340,000 which leveraged a total of $2.6 million in

project funds.
- Received a $51,350 grant from USDOE to participate in the Heavy-Duty State /Municipal Alternative Fuel Demonstration Project.
- Awarded matching grants to three local governments to upgrade and install state-of-the-art energy management control systems.

Photovoltaic Incentive Grant Program
- Assisted in creating 450 new jobs at United Solar Systems Corporation in Newport News a major photovoltaic manufacturer that is constructing a $30 million, 85,000 square foot complex in Newport News, Virginia. This is a direct result of the development of the Photovoltaic Incentive Grant Program legislation passed in 1992.

Educating the residential sector on energy efficiency and conservation.
- Established Energy Rated Homes of Virginia, Inc., a nonprofit organization, to administer operation of a uniform energy rating system for new and existing construction in Virginia.
- Developed a 118 page comprehensive, illustrated, energy guide designed to educate the public on how to save energy, money, and the environment.

FUTURE

The work and activities of the Division of Energy enable the efficient use of traditional and renewable energy resources by all end-use sectors. The Division's major focus will be to initiate demonstrations and provide guidance to all clients in areas of conservation, energy efficiency, and renewables. The primary role of the Division will be to provide the special emphasis needed to gain acceptance and use of new technologies. As in the past, the expertise and information provided to clients by the Division of Energy will have a significant, positive impact on changing energy consumption behaviors. In addition, the Division will expand its activities to facilitate a greater use of alternative and renewable energy technologies across the state to stimulate economic development. The Division's future includes acting as a clearinghouse for federal dollars; strengthening of coalition and partnership building; strategic energy policy development; demonstrations of new and emerging technologies; continued coordination of state agency efforts to reduce energy consumption statewide; energy contingency planning; and promotion and increased awareness of energy efficiency. Ultimately, the Division's work will provide a sustainable energy future that is necessary to enhance the quality of life in Virginia. The results will be increased economic development opportunities, enhanced environmental protection, and reduced energy costs and consumption.

During the next biennium, the Division will focus specifically in six major areas as listed below:

1. State Agency Support
2. Alternative Transportation Fuel/Fleet Development
3. Contingency Planning
4. Renewable Energy Resource Development
5. Institutional Conservation Program
6. Local Government Energy Management Planning

DIVISION OF ENERGY'S ANNUAL BUDGET

DESCRIPTION	SECP	ICP	TOTAL ANNUAL BUDGET
Staffing Costs	$362,521	$115,000	$447,521
Operating Expenses	$161,271	$115,000	$276,271
Project Costs	$740,326	$1,600,000	$2,340,326
Total Budget	**$1,264,118**	**$1,830,000**	**$3,094,118**
Estimated Federal Grants	<$264,118>	<$680,000>	<$944,118>
General Fund Request	**$1,000,000**	**$1,150,000**	**$2,150,000**

Total Budget does not inlcude indirect costs, which supplement administrative support services.

FUNDING SURCHARGE - SCENARIO #1

ENERGY DIVISION - $2,000,000

ELECTRICITY	.00002 cents per KWH	= $1,452,222
NATURAL GAS	.004 cents per MCF	= $652,792

TOTAL = $2,105,014

FUNDING SURCHARGE - SCENARIO #2

ENERGY DIVISION - $2,000,000

WAP - $3,500,000

TOTAL = $5,500,000

ELECTRICITY	.000053 cents per KWH	= $3,850,561
NATURAL GAS	.01 cents per MCF	= $1,631,980

TOTAL = $5,482,541

FUNDING SURCHARGE - SCENARIO #3

ENERGY DIVISION - $2,000,000

WAP - $3,500,000

LIHEAP - $1,500,000

TOTAL = $7,000,000

ELECTRICITY	.000067 cents per KWH	= $4,864,937
NATURAL GAS	.013 cents per MCF	= $2,121,574

TOTAL = $6,986,511

FUNDING SURCHARGE - SCENARIO #4

ENERGY DIVISION - $2,000,000

WAP - $3,500,000

LIHEAP - $1,500,000

R & D - $5,000,000

TOTAL = $12,000,000

ELECTRICITY .000115 cents per KWH = $8,350,265

NATURAL GAS .022 cents per MCF = $3,590,356

TOTAL = $11,940,621

Appendix M

COMMONWEALTH OF VIRGINIA

FRANK W. NOLEN
ASSISTANT MAJORITY LEADER
24TH SENATORIAL DISTRICT
AUGUSTA, HIGHLAND, ROCKBRIDGE,
BUENA VISTA, LEXINGTON, STAUNTON
WAYNESBORO, ROCKINGHAM, SOUTHEASTERN PART
P.O. BOX 13
NEW HOPE, VIRGINIA 24469

SENATE

COMMITTEE ASSIGNMENTS:
REHABILITATION AND SOCIAL SERVICES, CHAIRMAN
AGRICULTURE, CONSERVATION AND NATURAL RESOURCES
COMMERCE AND LABOR
EDUCATION AND HEALTH
RULES

January 27, 1994

John M. Bennett, Director
Senate Finance Committee Staff
General Assembly Building
Tenth Floor
Richmond, Virginia 23219

Re: Virginia Coal and Energy Commission

Dear Mr. Bennett:

At its meeting on November 29, 1993, the Virginia Coal and Energy Commission received testimony regarding the effect of the cessation of federal oil overcharge funds on energy programs in the Commonwealth. I am honored to serve as chairman of the Commission.

Until the current fiscal year, oil overcharge funds have been a major source of energy program funding. From 1987 through 1991, the federal Department of Energy allocated over $110 million in oil overcharge funds to Virginia programs. Approximately $8 million has been allocated to the Commonwealth in the 1992-94 biennium.

After the 1993-94 fiscal year, no further allocations of oil overcharge moneys are planned. The Commission has received reports that the effect of the loss of this source of funding will impair the continuation of the Weatherization Assistance Program and the Division of Energy's energy programs. Based on these reports, the Coal and Energy Commission has unanimously endorsed the following proposals.

I. Weatherization Assistance Programs.

The Commission has been advised that the depletion of the federal oil overage funds threatens the viability of the Weatherization Assistance Program administered by the Department of Housing and Community Development.

Between 1984 and 1992, the Program assisted an average of 4,500 households per year with an average budget of $8.6 million. In fiscal year 1993, funding for the Program, which included the last of the federal oil overcharge funds, was $6.4 million. In 1994, funding for the Program is $5.2 million. At this level, 2,400 households are expected to receive assistance.

The Weatherization Assistance Program currently receives between $3.1 and $3.3 million in federal funds under the U.S. Department of Energy's weatherization assistance program. In order to qualify for these federal funds, however, a state's program must provide statewide coverage.

Approximately $750,000 in oil overcharge funds was allocated to the Program in the 1992-94 budget period.

Based on the current pace of Weatherization Assistance Program activity, half of the local program administrators will not be able to operate a full twelve months in fiscal year 1994 due to funding limitations. A funding level of $6 million has been said to be needed in order to enable all local Program administrators to meet the needs of their clients for the remainder of the current fiscal year.

According, the Coal and Energy Commission, at its meeting on January 11, 1994 unanimously endorsed an amendment to the current appropriations bill for the period ending June 30, 1994, to increase state funding for the Weatherization Assistance Program by $750,000.

In addition, the Coal and Energy Commission, at the recommendation of the Energy Preparedness Subcommittee, unanimously approved a motion at its November 19, 1993, meeting endorsing the Department of Housing and Community Development's request for an appropriation of the

Weatherization Assistance Program of $1,500,000 for each of fiscal year 1995 and 1996. Projected Program funding is limited to a $3,200,000 federal appropriation for each of these fiscal years. These appropriations may require at state match. Federal funding of $3,200,000, coupled with the requested general fund appropriation of $1,500,000, and a projected $1,000,000 to $1,500,000 in leveraged funds, will provide the minimum required budget to ensure continuation of the Weatherization Assistance Program.

II. Virginia Division of Energy Programs.

The Division of Energy within the Department of Mines, Mineral and Energy has historically operated under two federal grant programs, the State Energy Conservation Program/Energy Extension Service (SECP/EES) and the Institutional Conservation Program (ICP). The grant programs have been supplemented with oil overcharge funds since 1986. Of the total $8 million of oil overcharge funds allocated to Virginia the 1992-1994 biennium, ICP received $2.3 million and SECP/EES received $1.7 million.

The Division of Energy's programs provide valuable, cost-effective services to the citizens of the Commonwealth. Accomplishments include instituting energy management planning in all state agencies, increasing the efficient use of energy resources by local governments, and developing the Virginia Energy Plan.

The Commission was advised that in order to continue to provide services at current level, the Department of Mines, Minerals and Energy has submitted a request for a general fund appropriation of $2,150,000 for each year of the next biennium. Of this total, $1,500,000 is for the ICP, and $1,000,000 is for the SECP/EES.

The Coal and Energy Commission recommended that the General Assembly approved the general fund request for these programs at its meeting on November 29, 1993. This action followed the proposal's endorsement by the Energy Preparedness Subcommittee.

On behalf of the Coal and Energy Commission, I urge the Committee to authorize the appropriation of these funds in order to ensue the Commonwealth's continued ability to serve the energy-related needs of its residents.

Very truly yours,

Frank W. Nolen
Member, Senate of Virginia

cc: Members of the Virginia Coal and Energy Commission:
Delegate A. Victor Thomas, Chairman
Senator Frank W. Nolen, Vice Chairman
Delegate Lewis W. Parker, Jr.
Delegate Ford C. Quillen
Delegate Alson H. Smith, Jr.
Delegate Jackie T. Stump
Delegate James F. Almand
Delegate John Watkins
Delegate J. Paul Councill, Jr.
Senator William C. Wampler, Jr.
Senator H. Russell Potts, Jr.
Senator Charles J. Colgan
Mr. Everard Munsey
Senator Jackson E. Reasor, Jr.
Richard A. Wolfe, Ph.D.
Mr. W. Thomas Hudson
Ms. Kaye G. Green
Mr. Jerry D. Duane
Mr. John S. DiYorio
Mr. Scott Perkins
Neal J. Barber, Director, Department of Housing and Community Development
Kathy J. ReynoldsDeputy Director, Department of Mines, Minerals and Energy

COMMONWEALTH OF VIRGINIA

FRANK W. NOLEN
ASSISTANT MAJORITY LEADER
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SENATE

COMMITTEE ASSIGNMENTS:
REHABILITATION AND SOCIAL SERVICES, CHAIRMAN
AGRICULTURE, CONSERVATION AND NATURAL RESOURCES
COMMERCE AND LABOR
EDUCATION AND HEALTH
RULES

January 27, 1994

Rebecca L. Covey, Director
House Approriations Committee Staff
General Assembly Building
Ninth Floor
Richmond, Virginia 23219

Re: Virginia Coal and Energy Commission

Dear Ms. Covey:

At its meeting on November 29, 1993, the Virginia Coal and Energy Commission received testimony regarding the effect of the cessation of federal oil overcharge funds on energy programs in the Commonwealth. I am honored to serve as chairman of the Commission.

Until the current fiscal year, oil overcharge funds have been a major source of energy program funding. From 1987 through 1991, the federal Department of Energy allocated over $110 million in oil overcharge funds to Virginia programs. Approximately $8 million has been allocated to the Commonwealth in the 1992-94 biennium.

After the 1993-94 fiscal year, no further allocations of oil overcharge moneys are planned. The Commission has received reports that the effect of the loss of this source of funding will impair the continuation of the Weatherization Assistance Program and the Division of Energy's energy programs. Based on these reports, the Coal and Energy Commission has unanimously endorsed the following proposals.

I. Weatherization Assistance Programs.

The Commission has been advised that the depletion of the federal oil overage funds threatens the viability of the Weatherization Assistance Program administered by the Department of Housing and Community Development.

Between 1984 and 1992, the Program assisted an average of 4,500 households per year with an average budget of $8.6 million. In fiscal year 1993, funding for the Program, which included the last of the federal oil overcharge funds, was $6.4 million. In 1994, funding for the Program is $5.2 million. At this level, 2,400 households are expected to receive assistance.

The Weatherization Assistance Program currently receives between $3.1 and $3.3 million in federal funds under the U.S. Department of Energy's weatherization assistance program. In order to qualify for these federal funds, however, a state's program must provide statewide coverage.

Approximately $750,000 in oil overcharge funds was allocated to the Program in the 1992-94 budget period.

Based on the current pace of Weatherization Assistance Program activity, half of the local program administrators will not be able to operate a full twelve months in fiscal year 1994 due to funding limitations. A funding level of $6 million has been said to be needed in order to enable all local Program administrators to meet the needs of their clients for the remainder of the current fiscal year.

According, the Coal and Energy Commission, at its meeting on January 11, 1994 unanimously endorsed an amendment to the current appropriations bill for the period ending June 30, 1994, to increase state funding for the Weatherization Assistance Program by $750,000.

In addition, the Coal and Energy Commission, at the recommendation of the Energy Preparedness Subcommittee, unanimously approved a motion at its November 19, 1993, meeting endorsing the Department of Housing and Community Development's request for an appropriation of the

Weatherization Assistance Program of $1,500,000 for each of fiscal year 1995 and 1996. Projected Program funding is limited to a $3,200,000 federal appropriation for each of these fiscal years. These appropriations may require at state match. Federal funding of $3,200,000, coupled with the requested general fund appropriation of $1,500,000, and a projected $1,000,000 to $1,500,000 in leveraged funds, will provide the minimum required budget to ensure continuation of the Weatherization Assistance Program.

II. Virginia Division of Energy Programs.

The Division of Energy within the Department of Mines, Mineral and Energy has historically operated under two federal grant programs, the State Energy Conservation Program/Energy Extension Service (SECP/EES) and the Institutional Conservation Program (ICP). The grant programs have been supplemented with oil overcharge funds since 1986. Of the total $8 million of oil overcharge funds allocated to Virginia the 1992-1994 biennium, ICP received $2.3 million and SECP/EES received $1.7 million.

The Division of Energy's programs provide valuable, cost-effective services to the citizens of the Commonwealth. Accomplishments include instituting energy management planning in all state agencies, increasing the efficient use of energy resources by local governments, and developing the Virginia Energy Plan.

The Commission was advised that in order to continue to provide services at current level, the Department of Mines, Minerals and Energy has submitted a request for a general fund appropriation of $2,150,000 for each year of the next biennium. Of this total, $1,500,000 is for the ICP, and $1,000,000 is for the SECP/EES.

The Coal and Energy Commission recommended that the General Assembly approved the general fund request for these programs at its meeting on November 29, 1993. This action followed the proposal's endorsement by the Energy Preparedness Subcommittee.

On behalf of the Coal and Energy Commission, I urge the Committee to authorize the appropriation of these funds in order to ensue the Commonwealth's continued ability to serve the energy-related needs of its residents.

Very truly yours,

Frank W. Nolen
Member, Senate of Virginia

cc: Members of the Virginia Coal and Energy Commission:
Delegate A. Victor Thomas, Chairman
Senator Frank W. Nolen, Vice Chairman
Delegate Lewis W. Parker, Jr.
Delegate Ford C. Quillen
Delegate Alson H. Smith, Jr.
Delegate Jackie T. Stump
Delegate James F. Almand
Delegate John Watkins
Delegate J. Paul Councill, Jr.
Senator William C. Wampler, Jr.
Senator H. Russell Potts, Jr.
Senator Charles J. Colgan
Mr. Everard Munsey
Senator Jackson E. Reasor, Jr.
Richard A. Wolfe, Ph.D.
Mr. W. Thomas Hudson
Ms. Kaye G. Green
Mr. Jerry D. Duane
Mr. John S. DiYorio
Mr. Scott Perkins
Neal J. Barber, Director, Department of Housing and Community Development
Kathy J. Reynolds, Deputy Director, Department of Mines, Minerals and Energy

DMME - Historical Budget Trends

1986 - 1993

Appendix N

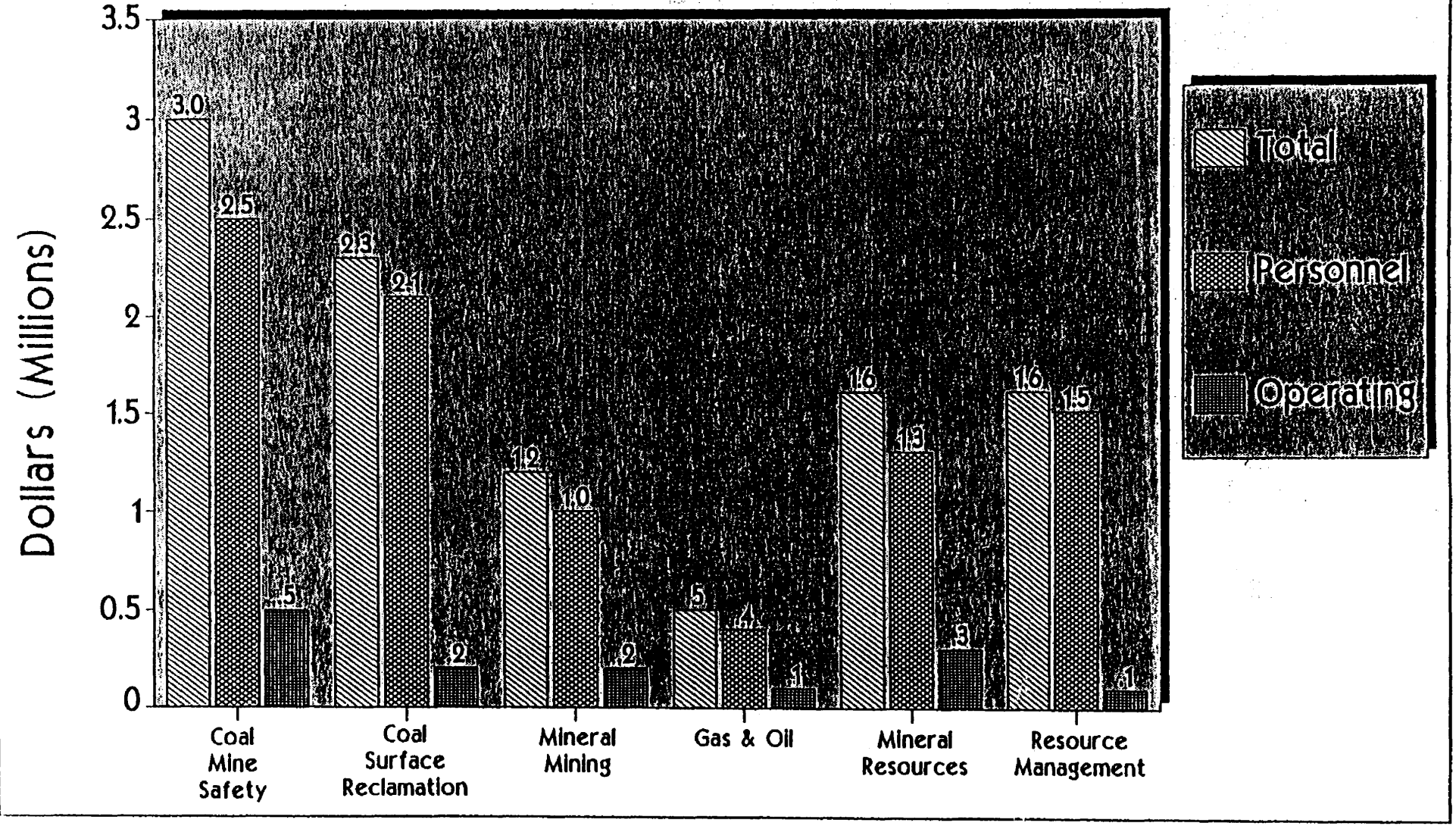
DMME Budget Reduction

ACTIONS - ANNUAL SAVINGS

Actions	Savings
Reduce Discretionary Spending	$ 380,000
Increase Operational Efficiency	560,000
Staff Reductions	465,000
Service Reductions	500,000
Fund Switch	425,000
Total	$2,330,000

DMME 1993 - 1994 Budget Picture

General Funds Only



COMMONWEALTH of VIRGINIA

COAL AND ENERGY COMMISSION
General Assembly Building

910 CAPITOL STREET
SECOND FLOOR
RICHMOND, VIRGINIA 23219

IN RESPONSE TO
THIS LETTER TELEPHONE
(804) 786-3591

February 1, 1994

John M. Bennett, Director
Senate Finance Committee Staff
General Assembly Building
Tenth Floor
Richmond, Virginia 23219

Re: Coal and Energy Commission recommendations concerning the Virginia Center for Coal and Energy Research.

Dear Mr. Bennett:

I am Chairman of the Virginia Coal and Energy Commission and am writing to express the Commission's support for state funding of the Virginia Center for Coal and Energy Research. Over the years, the Center has rendered invaluable assistance to the Commission in preparing timely and comprehensive analyses that the Commission uses in assessing key energy issues – especially those affecting Virginia's coal industry. The Center's Director, Dr. John Randolph, and Assistant Director, Dr. Carl Zipper, appear frequently before the Commission to present briefings on key coal and energy issues.

Consequently, Commission members were greatly disturbed to learn that the state budget submitted by former Governor Wilder eliminates the general fund appropriation for the Center for Coal and Energy Research. In response, the Commission voted unanimously at its January 11 meeting to seek restoration of this appropriation because the Center and its work are extremely important to the Commission and to the people of Virginia.

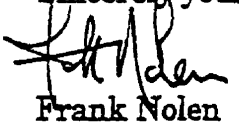
The Center, located at Virginia Tech, is established in Article 2.01 (§ 23-135.7:1 et seq.) of Chapter 11 of Title 23 of the Code of Virginia. Since its founding in 1977, the Center has provided valuable assistance to the members of the Commission in its study of energy and coal issues. From its inception until 1993, the Center's appropriation had been included within the Research Division portion of Virginia Tech's budget. The university had reduced its allocation of funds to the Center in 1989 and subsequent years.

In response to the reductions in funding to the Center, the Coal and Energy Commission unanimously recommended at its January 1993 meeting that the Commonwealth's budget be amended to establish a "line item" for the Center. The Commission's effort was successful, and the 1993 budget bill (Chapter 994 of the 1993 Acts of Assembly) included an amendment adding a provision that the total appropriation for Virginia Tech's Research Division includes $150, 031 from the general fund each year for the Center.

Please advise the Chairman and members of the Senate Finance Committee of the Commission's concern. Without these funds the Center's ability to provide valuable services to the Commission as well as to the citizens of the Southwest and other regions of the Commonwealth will be sharply curtailed, if not eliminated.

All of the members of the Commission join me in requesting the committee's assistance in restoring the general fund appropriation for the Virginia Center for Coal and Energy Commission.

Sincerely yours,



Frank Nolen
Chairman
Member, Senate of Virginia

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cc: Members, Virginia Coal and Energy Commission
bcc: Dr. John Randolph, Director
Virginia Center for Coal & Energy Research

COMMONWEALTH of VIRGINIA

COAL AND ENERGY COMMISSION
General Assembly Building

910 CAPITOL STREET
SECOND FLOOR
RICHMOND, VIRGINIA 23219

IN RESPONSE TO
THIS LETTER TELEPHONE
(804) 786-3591

February 1, 1994

Rebecca L. Covey, Director
House Appropriations Committee Staff
General Assembly Building
Ninth Floor
Richmond, Virginia 23219

Re: Coal and Energy Commission recommendations concerning the Virginia Center for Coal and Energy Research.

Dear Ms. Covey:

I am Chairman of the Virginia Coal and Energy Commission and am writing to express the Commission's support for state funding of the Virginia Center for Coal and Energy Research. Over the years, the Center has rendered invaluable assistance to the Commission in preparing timely and comprehensive analyses that the Commission uses in assessing key energy issues – especially those affecting Virginia's coal industry. The Center's Director, Dr. John Randolph, and Assistant Director, Dr. Carl Zipper, appear frequently before the Commission to present briefings on key coal and energy issues.

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Please advise the Chairman and members of the House Appropriations Committee of the Commission's concern. Without these funds the Center's ability to provide valuable services to the Commission as well as to the citizens of the Southwest and other regions of the Commonwealth will be sharply curtailed, if not eliminated.

All of the members of the Commission join me in requesting the committee's assistance in restoring the general fund appropriation for the Virginia Center for Coal and Energy Commission.

Sincerely yours,

Frank Nolen
Chairman
Member, Senate of Virginia

AKB;hs
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cc: Members, Virginia Coal and Energy Commission
bcc: Dr. John Randolph, Director
Virginia Center for Coal & Energy Research

Appendix P

POWELL RIVER PROJECT: PROGRAMS AND CAPABILITIES

Carl E. Zipper. Associate Director - Powell River Project.
Virginia Tech, Blacksburg VA 24061-0411. (703) 231-5038.

Mission

Powell River Project (PRP) is a Virginia Tech program which has served Virginia's coal-producing counties since 1980. PRP brings resources of Virginia Tech to bear upon problems experienced in southwestern Virginia. PRP produces and distributes information which enables people to address problems more effectively.

PRP's mission is to *sponsor research* and *distribute knowledge* so as to provide *benefits* to people, governments, and industries in Virginia's coal-producing counties. To this end, PRP sponsors programs in the following areas:

- Land Reclamation and Reclaimed Land Use.
- Environmental Protection.
- Economic Development.
- Quality of Life.

PRP's service region includes the Virginia counties of Lee, Scott, Wise, Dickenson, Buchanan, Russell, and Tazewell, and the City of Norton.

Programs

PRP has a solid record of innovation and achievement. Research has developed technologies for use by the coal industry to protect the environment, decrease regulatory compliance costs, and increase use-potentials of reclaimed mines:

- *Reforestation of Reclaimed Mines:* John Torbert and Jim Burger (Forestry) developed mined land reforestation guidelines which reduce costs, improve reclamation success, and increase timber crop yields.
- *Coal Refuse Revegetation:* Current reclamation regulations require a 4-foot soil cover over coal refuse, which can be costly. Lee Daniels (Crop and Soil Environmental Sciences) developed guidelines for revegetating refuse using reduced soil thicknesses or direct seeding, based on refuse properties.
- *Mine Discharge Water Quality:* A "passive" water treatment technology, developed by Al Hendricks (Biology), relies on biological processes. Industry spends thousands of dollars annually to chemically treat mine drainage.
- *Household Wastewater Disposal:* Ray Reneau (Crop and Soil Environmental Sciences) is developing alternatives to septic drainfields for safe use on reclaimed mines. This technology has the potential to allow residential use of reclaimed mines where public sewers are not available.

PRP also provides non-mining public service programs:

- *Household Water Quality Education:* Blake Ross (Biological Systems Engineering) conducts chemical and bacterial analyses of well, spring, and cistern waters. Primary goal is education. Data on 2800 home water sources are being compiled, will be available for use in water system funding proposals.
- *Coal Severance Tax Study:* George McDowell (Agricultural and Applied Economics) and Art Topuz (Mining and Minerals Engineering) are investigating likely effects of future coal production trends on local tax revenues.
- *Education Programs for Local Schools:* Each year, over 1500 students from southwestern Virginia public schools participate in PRP education programs at the Education Center, a 1700 acre facility in Wise County.

Two current initiatives seek to extend PRP's approach to a regional basis:

- *Central Appalachian Alliance:* We are working with University of Kentucky to develop a regional program that will address central Appalachian problems.

- *Abandoned Mined Land Restoration:* PRP leads an effort to develop innovative solutions to problems of pre-1977 abandoned mines. This effort includes coal industry, citizen, and regulatory interests, and is investigating policy options to increase opportunities for AML restoration by active mining.

A complete list of programs is contained in PRP's *Annual Report.*

Personnel

Board of Directors: represents Virginia Tech, southwest Virginia industry, other community interests; establishes priorities; maintains budget responsibility.

Advisory Council and *Program Development Committee:* Represent service area and state agency interests; provide guidance to Board and staff.

Staff carries out day-to-day activities:

John Gerken, Associate Director - Administration: Administers funding and communications with Board; retired Professor of Animal Science.

Jon Rockett, Area Extension Agent: Conducts education programming from an office at Clinch Valley College in Wise.

C.B. Slemp, Associate Director - Corporate Relations: Leads regional initiatives; serves Univ. of Kentucky as Director, Central Appalachian Alliance.

Carl Zipper, Associate Director - Programs: Develops and oversees research programs; also serves as Associate Director of Virginia Center for Coal and Energy Research, and as undergraduate instructor.

Virginia Tech Faculty: Lead research. PRP develops priorities, recruits faculty to address priorities, provides funding, develops co-sponsorship, arranges local coordination. PRP does not possess staff research capacity.

Program development can take up to one year. Because most research depends on graduate students, programs can take up to three years to complete.

Funding

FY 1992-93 PRP Budget:	
Industry	$163,000
Virginia Tech Research Division	25,000
State	83,000
Other Program Support:	
Parallel and Matching Funds	315,000
In-Kind and Other Contributions (est.)	405,000
Est. Value of FY 92-93 Program Effort:	$991,000

Industry Support: 1992-93 funding from Penn Virginia Resources Corporation, Norfolk Southern Foundation, Westmoreland Coal, United Coal, Clinchfield Coal. Penn Virginia has provided primary funding since 1980. Norfolk Southern has provided sustained support since 1984.

Parallel and Matching Funds: Appalachian Power, Virginia Power, Consolidation Coal, Pocahontas Land Corp., Virginia CIT, U.S. Office of Surface Mining, National Science Foundation, Cooperative Extension (partial listing).

In-Kind and Other Contributions: Education Center maintenance provided by Penn Virginia, field support by cooperating firms, office space by Clinch Valley College, faculty time and other support by Virginia Tech (partial listing).

Budgeted funds support program expenses (*i.e.* student stipends, travel, field and laboratory supplies) and staff. State funding is essential. In 1992-93, each $1 of state funding was matched by nearly $6 of non-university funding, over $10 in total program effort.

Appendix Q

Virginia Department of Environmental Quality
Waste Tire Program Briefing Paper

For The Energy Preparedness Subcommittee

Virginia Coal and Energy Committee

January 11, 1994

In Virginia approximately 4,000,000 waste tires are generated every year. Burning waste tires for energy recovery is the most predominate method for beneficially using waste tires in Virginia. The other uses, such as crumb rubber for asphalt or molded rubber products, civil engineering applications, pyrolysis and retreading are currently not in widespread use in Virginia, although several operations have been proposed.

Currently, in Virginia, the total number of tires used annually for energy production is as follows:

Location	Tires Utilized
- Southeast Virginia Public Service Authority (SPSA)	400,000
- Private Recycler - Richmond	200,000 - 400,000
- Fairfax County	100,000
Total	700,000 - 900,000

In addition, approximately 1,000,000 waste tires are landfilled. The remaining 2,000,000 waste tires are handled in one of two ways. First, some are disposed by out-of-state processors through individual business contracts. Other tires are improperly dumped in Virginia. The number of waste tires managed in these two ways is not yet known. The purpose of the Waste Tire Program is to capture these 3 million tires and redirect them to a beneficial use.

Meeting air emission requirements appears to be the biggest hurdle for potential uses of waste tires. To date, only the three facilities listed above have the necessary air permits to burn waste tires. Two other recent attempts to meet air emission requirements have failed and the projects are being reconsidered.

To date, there is no published data in Virginia on changes in air emissions for facilities which switched or augmented the fuel supply with the use of whole or shredded waste tires. Virginia Power is planning a test burn of waste tire material at one of its power stations. The Virginia Power test burn is expected to provide the necessary data. In addition, the DEQ operating divisions of air, water and waste are coordinating the review of the necessary permits, permit amendments or orders needed to carry out this testing procedure.

Pursuant to legislation enacted in 1993, the DEQ is actively developing the End User Reimbursement regulations and program, which will provide additional economic incentives for the utilization of waste tires, including energy recovery. The reimbursement system is expected to be operational in late 1994 and will provide, for the first time, accurate data on utilization of tire materials statewide.

For more information about the Waste Tire Program, please contact Deanna Sampson, Legislative Liaison at (762-4375).

Virginia Involvement in National Energy Policy Initiatives

NEPAct 1992	Provision	State Action to-date	Possible Additional State Action
Coal Mining	Subsidence-impacted water replacement	HB 1687 - water replacement	Review, revise when OSM regs
	Subsidence-impacted structures		Revise state regs when OSM regs
Remining	New OSM regs by Oct 93		Revise state regs when OSM regs
Coal Promotion	Studies, progs for CB methane, met coal, exports, CCT export...	VDMME CCT studies; HJR 208 export plan	Monitor federal studies, if funded
Electricity	Exempt Wholesale Generators; Transmission Access	IPPs established in VA	Monitor FERC rules & implement. Monitor FERC rules & implement.
Altern. Fuels & Veh.	State Fleet mandate; State Plan for altern. fuel promo.	VDOT State Fleet CNG program VDMME local govt CNG program	Prepare state plan to qualify for
Energy Efficiency	State bldg code review & cert.	VDHCD code review, adopt CABO'92 (1994)	DOE certification of code review
	Energy Rated Homes guidelines	Energy Rated Homes of VA started, 7/92	
	Energy Eff. Mortgage Pilot Program	VA one of 5 pilot states (6/93)	
	Utility DSM: PUCs consider; grants	VSCC C&LM ruling (3/92)	Further SCC attention; apply for grants if available
	Grants for state bldg eff. loans	VEP-Agency Energy Management Plans	Apply for grants if available
	Funding for weatherization partner.	VA WAP activities w/ util., private sector	Apply for funding if available
Renewable Energy	Subsidy for QREF, invest. tax credit, demo/commercialization program	VA PV production grant (SB 876); VDMME solar demos in state facilities	Monitor relationship of state & federal programs

Appendix S

SUMMARY OF STATE CORPORATION COMMISSION'S RULES ON COST/BENEFIT MEASURES

The Commission's Order Issuing Rules on Cost/Benefit Measures was released on June 28, 1993. This order was the result of an investigation of policy that began in January 1991 with the establishment of Case No. PUE900070.

Case No. PUE900070 was established in order to address broad policy questions regarding conservation and load management programs of both electric and natural gas utilities. In conducting its investigation, the Commission requested comments on a broad spectrum of conservation and load management issues. Among the parties submitting comments were electric and natural gas utilities, government agencies, nonprofit organizations, and citizen and environmental groups. The Commission directed its Staff to review those comments and prepare a report recommending specific rules or policies regarding DSM programs by April 26, 1991. Oral argument was heard on October 29, 1991.

The Commission issued its final order in Case No. PUE900070 on March 27, 1992. That order set in motion a number of policy changes. These changes included a revision of the Commission's promotional allowance rules to allow promotional allowance programs to achieve energy conservation, load reduction, or improved energy efficiency. The Commission also directed that utilities file formal applications for review of conservation and load management programs. In addition, the Commission directed its Staff to organize a working group to develop recommendations on appropriate cost/benefit methodologies to estimate the cost

effectiveness of DSM programs.

The Staff established a task force consisting of Virginia's Secretary of Natural Resources and representatives from Appalachian Power, Potomac Edison, Virginia Power, Commonwealth Gas Services, Washington Gas Light, Virginia Natural Gas, Southern Environmental Law Center, the Office of the Attorney General, Sycom Enterprises, Old Dominion Electric Cooperative, the American Lung Association, and the Virginia Committee for Fair Utility Rates. This task force met from June 1992 through September 1992. On February 9, 1993 the Staff filed its report with recommendations regarding cost/benefit analysis. This report reflected many of the positions discussed by the task force but was not meant to be a consensus of the group. Written as well as oral comment on the Staff's report were provided to the Commission.

The Commission issued its order establishing rules on cost/benefit measures on June 28, 1993. The Commission found that a multi-perspective approach to evaluating DSM programs is in the public interest. Utility applicants were required to provide cost/benefit analyses using the following four tests: 1) participant test, 2) utility cost test, 3) ratepayer impact measure (RIM) test, and 4) total resource cost test. The four tests essentially measure costs and benefits from four different perspectives. Minimum guidelines for data input and modeling assumptions were also established.

The participant test measures the costs and benefits of a program to the customer participating in the program. The participant's test is a good measure of the attractiveness of a

program to a customer and thus provides information useful in anticipating likely participation rates.

The utility cost test measures the change in a utility's revenue requirement resulting from a program.

The RIM test measures the difference between the change in total revenue paid to a utility and the change in total costs to a utility resulting from the program. The RIM test offers a measure of the impact of a DSM program on customers who do not participate in a particular program.

The total resource cost test measures the net cost of a DSM program as a resource option based on the total cost of the program, including the participant's and the utility's cost. It is a measure of the change in the average cost of energy services across all customers.

RECENT DSM PROGRAM ACTIVITY

Electric utilities have received approval for a number of DSM programs since the issuance of the Commission's two orders in Case No. PUE900070. Several recently approved programs of Virginia Power and Appalachian Power are described on the next page. A recent Potomac Edison application is also summarized.

Virginia Power

Financing for Energy Efficiency Measures - This is a pilot program that will be offered through the end of 1994. It will provide loans with annual interest rates as low as 6 percent to as many as 3,000 residential customers. The loans will be available for such improvements as increased building insulation, programmable thermostats, upgrading of existing heating and cooling systems, and improved ductwork. Loans of up to $10,000 will be offered to residential customers.

The program will also assist commercial and industrial customers. Reduced interest bank loans will be available to as many as 550 business customers. Virginia Power will pay participating banks a fee, effectively lowering the interest rates on such loans by 2%. Among the improvements covered are installation of high-efficiency electric heating and cooling systems, and installation of high efficiency motors and electro-technologies.

Field Studies of New Energy-Efficient Technologies - This pilot program will provide a total of $1 million in direct payments to qualifying residential customers for installation of advanced energy saving systems. The payments will help cover the

differences in cost between the higher efficiency equipment and the equipment that would otherwise be installed. The program will also provide a total of $1 million in payments to as many as 145 commercial and industrial customers. The allowance program will end by June 30, 1995.

Appalachian Power

In March 1993, the Commission approved the following five experimental programs of Appalachian Power.

Residential High Efficiency Light Bulbs - The Company is offering a $5.00 discount for each compact fluorescent bulb purchased by Roanoke Division customers. Up to 25,000 bulbs will be made available under the pilot program.

Low-Income Weatherization - This program is designed to provide up to $1,000 in weatherization services in up to 150 low-income residential customers in the Roanoke Division.

Water Heater Wrap/Showerhead Program - A contractor selected by the Company will install a water heater wrap, six feet of pipe insulation, and up to two energy saving showerheads in qualifying residential homes. The offer is limited to 2,500 Virginia customers in the Company's Bluefield Division.

Mobile Home Heat Pump Program - This program offers 375 mobile home owners in the Company's Abingdon Division up to $700 towards the labor cost of installing a high-efficiency heat pump to replace an existing electric furnace.

Commercial and Industrial Fluorescent Lighting - This program is designed to assist 10 commercial customers and 3 industrial customers in converting their existing standard efficiency lighting system to high efficiency units.

Potomac Edison

Energy Efficient Lighting - In September 1993, Potomac Edison filed an application for the approval of an energy efficient lighting pilot program. Under this program, Shenandoah University and Lord Fairfax Community College will be reimbursed for the installation costs of energy efficient lighting equipment in place of their existing light facilities.

EXAMPLES OF ONGOING DEMAND-SIDE MANAGEMENT PROGRAMS

Virginia Power

Energy Saver Homes
Residential Energy Audit Assistance
Duct Leakage Analysis and Repair
Thermal Energy Storage
Residential Water Heater Load Control
Residential Air Conditioning Load Control
Standby Generation
Curtailable Service

Appalachian Power

Transtext Variable Pricing Program

Potomac Edison

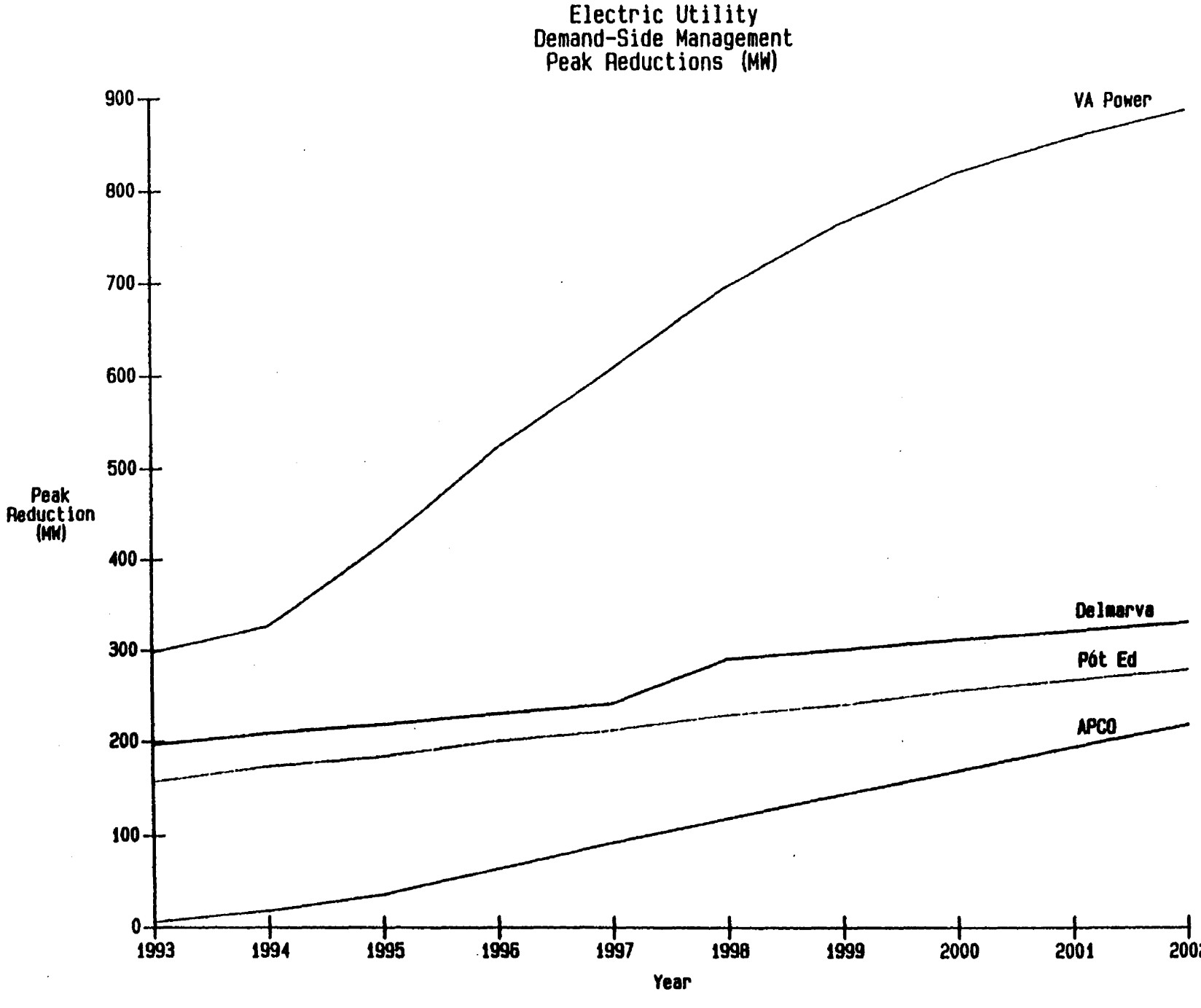
Add-On Heat Pump Program
Residential Home Insulation
Water Heater insulation Jackets

Delmarva Power

Commercial and Industrial Peak Management Program
Residential Water Heater Control
Residential Air Conditioner Control

ELECTRIC UTILITY
DEMAND-SIDE MANAGEMENT
PEAK REDUCTIONS (MW)

YEAR	VIRGINIA POWER	APPALACHIAN POWER	POTOMAC EDISON	DELMARVA POWER
1993	298	6	158	197
1994	326	18	174	209
1995	415	36	184	218
1996	519	64	200	229
1997	603	92	211	240
1998	690	118	227	288
1999	759	143	238	298
2000	814	167	253	308
2001	852	192	264	317
2002	882	215	275	326


Electric Utility
Demand-Side Management
Peak Reductions (MW)
Peak Reduction (MW)
900
800
700
600
500
400
300
200
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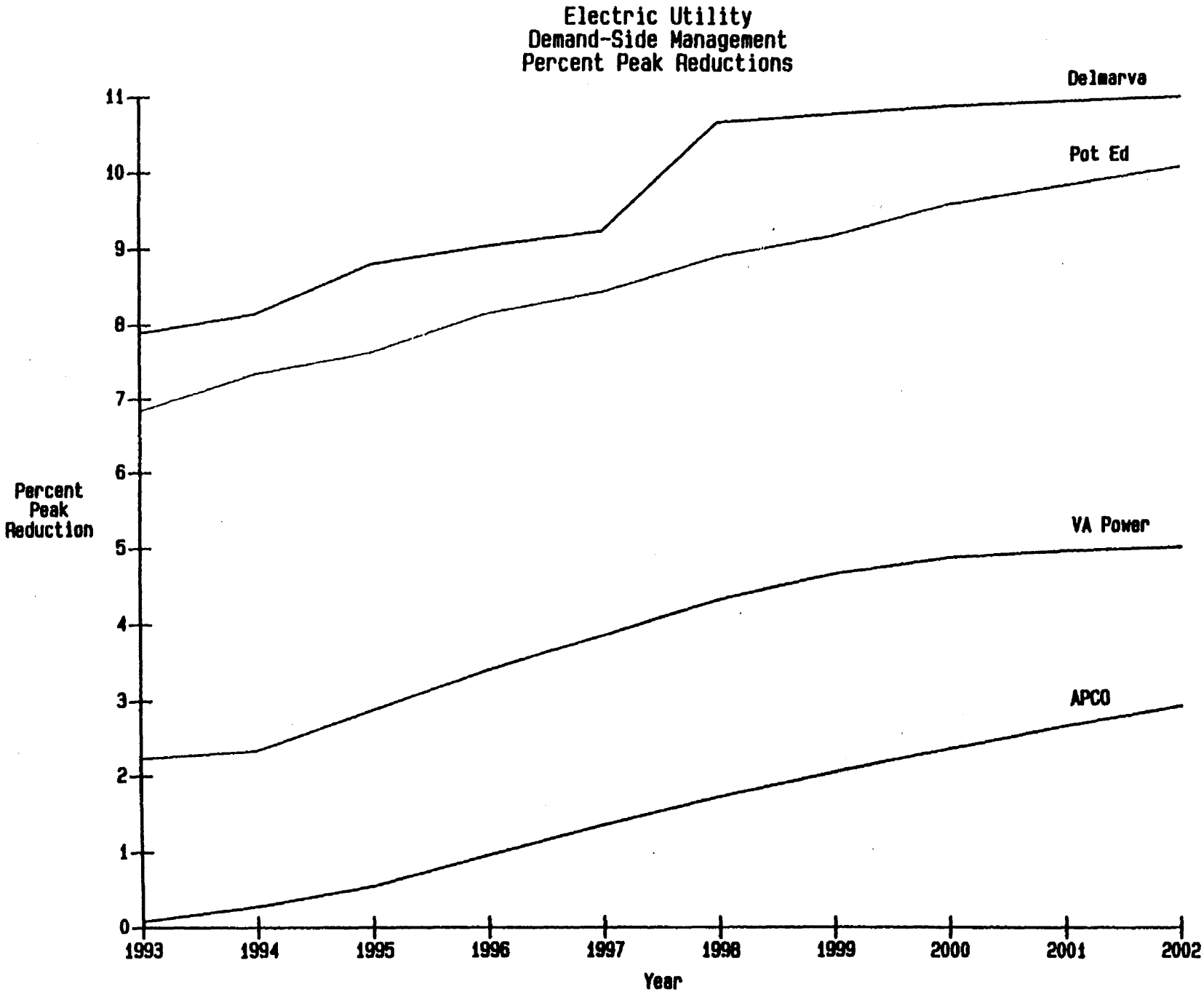
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
Year
VA Power
Delmarva
Pót Ed
APCO


Electric Utility
Demand-Side Management
Percent Peak Reductions
Delmarva
Pot Ed
VA Power
APCO
Percent Peak Reduction
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2000
2001
2002
Year

Appendix T

Expressing the Sense of the Virginia Coal & Energy Commission regarding proposed amendments to the Virginia Public Procurement Act

WHEREAS, Senate Joint Resolution 207 of 1993 continued the joint subcommittee established pursuant to Senate Joint Resolution 103 of 1992 which sought to identify and evaluate potential incentives for the adoption of pollution prevention initiatives; and

WHEREAS, included in the SJR 207 subcommittee's final recommendations was a proposed amendment to the Virginia Public Procurement Act requiring that "less-polluting goods and products" which meet the performance standards set forth in the applicable specifications be included in the procurements processes of the Department of General Services and any other agency of the Commonwealth; and

WHEREAS, while the use of public procurement to further pollution prevention throughout the Commonwealth is ostensibly laudable and commendable, nevertheless this proposal, if adopted by the General Assembly, may have negative consequences wholly unintended by the SJR 207 joint subcommittee; and

WHEREAS, one such unintended but potentially adverse consequence may be to place one of Virginia's native energy industries, the coal industry, at a competitive disadvantage in public procurement of fuel for heating and electrical power production; and

WHEREAS, a better approach may be to require the development of public procurement specifications and procedures that encourage consideration of environmental benefits as well as economic benefits to industries native to the Commonwealth; now, therefore,

BE IT RESOLVED, by the Virginia Coal and Energy Commission that the 1994 General Assembly is urged to reject any proposed amendment to the Virginia Public Procurement Act that requires state agencies to include less-polluting products in their procurement processes without regard to consideration of other significant factors such as the potential economic impact on native Virginia industries.

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