

GL03724

ENERGY POLICY REPORT

of the

JOINT LEGISLATIVE COMMITTEE ON ENERGY POLICY



Submitted to

The Governor and the Legislature

of the State of Utah

January, 1977

APPENDIX V**SCHEDULE OF PUBLIC HEARINGS**

Kanab — November 17, 7 p.m., Kane County Courthouse.

Cedar City — November 18, 6 p.m., Chamber of Commerce Building.

Logan — November 19, 7 p.m., Business Building Auditorium, Utah State University.

Roosevelt — November 22, noon, Zions Bank Conference Room.

Castle Dale, Emery County — November 22, 7:30 p.m., Emery County Courthouse.

Provo — November 23, 7 p.m., South Courtroom, County Building.

Price — November 23, 7:30 p.m., College of Eastern Utah.

Vernal — November 24, 7:30 p.m., Uintah County Courthouse.

Beaver — November 29, 7:30 p.m., Beaver County Courthouse.

Salt Lake City — December 1, 9:30 a.m., State Office Building Auditorium.

**APPENDIX IV
SPEAKERS AT THE JOINT LEGISLATIVE
COMMITTEE ON ENERGY POLICY MEETINGS**

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DATE	TOPIC	SPEAKER
June 22	UTAH ENERGY RESOURCES AND OWNERSHIP OF ENERGY RESOURCES	<u>Reed T. Searle</u> , Staff Director
June 29	WATER — A UTAH RESOURCE	<u>Daniel F. Lawrence</u> , Director Division of Water Resources
July 6	1) ENERGY SUPPLY	<u>Reed T. Searle</u> , Staff Director
	2) LEASING AND EXPLORATION POLICY	<u>Charles R. Hansen</u> , Director Division of State Lands
	3) MANPOWER POLICY	<u>Ray Sargeant</u> , Utah Job Service
	4) EXPORTATION POLICY	<u>Rodney D. Millar</u> , Staff Energy Consultant
July 13	1) ENERGY DEMAND	<u>Reed T. Searle</u> , Staff Director
	2) SOCIAL AND DEMOGRAPHIC IMPACTS OF LARGE SCALE ENERGY DEVELOPMENT PROJECTS	<u>Barry Crawford</u> , Policy Research Program and Utah State University
July 20	1) ENERGY SITING POLICY	<u>Douglas Kirk</u> , State Planning Coordinator's Office
	2) URANIUM DEVELOPMENT	<u>Dr. Richard Turley</u> , State Science Advisor
July 27	1) SOCIOECONOMIC IMPACTS OF ENERGY DEVELOPMENT UPON LOCAL GOVERNMENTS	<u>Mayor Robert Swinburne</u> Huntington, Utah <u>Mayor Walter T. Axelgaard</u> Price, Utah
	2) INFRASTRUCTURE COSTS	<u>William Asplund</u> , Research Analyst Office of Legislative Research
August 3	1) ALTERNATIVE ENERGY DEVELOPMENT	<u>Earl Ramsey</u> , Program Director White River Oil Shale Project
	a) SOLAR ENERGY	<u>Dr. Robert Boehm</u> , Chairman, Solar Energy Subcommittee for State Advisory Council on Science and Technology
	b) GEOTHERMAL	<u>Rodney D. Millar</u> , Staff Energy Consultant
	2) RESEARCH AND DEVELOPMENT POLICY	<u>Dr. Dean Peterson</u> , Vice President of Research, Utah State University
August 10	1) SOCIOECONOMIC POLICY	<u>Mayor Paul J. Wetaha</u> , Rock Springs, Wyoming
	2) ENVIRONMENTAL PROTECTION POLICY, ENVIRONMENTAL LAW	<u>Ronald Staten</u> , Attorney, Office of the Regional Solicitor, United States Department of the Interior
August 17	1) ENERGY CONSERVATION	<u>Cliff R. Collings</u> , State Energy Coordinator
	2) ENERGY RESOURCE DEVELOPMENT IN UTAH — HYDROGEN AS AN ALTERNATE FUEL	<u>Roger Billings</u> , President Billings Enterprises
August 24	1) ECONOMIC BENEFITS AND OTHER CONSEQUENCES OF ENERGY DEVELOPMENT IN UTAH	<u>Max Eliason</u> , President, Skyline Oil Company
	2) UTAH COAL VERSUS NEIGHBORING STATES' COAL	<u>Wallace Wilson</u> , Senior Vice-President Continental Illinois Bank and Trust of Chicago
	3) FEDERAL CONSTRAINTS TO ENERGY DEVELOPMENT	<u>Constance Lundberg</u> , Council on Environmental Quality
August 31	1) COAL GASIFICATION	<u>Russ Hulse</u> , Arizona Resource Company <u>Jack Laegarias</u> , Kaiser Engineers
	2) ELECTRIC POWER GENERATION	<u>J. Sterling Merrell</u> , Intermountain Consumer Power Association

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Neal F. Christensen, Executive Director, Utah Five-County Association of Governments

Dr. John C. Sawhill, President, New York University, former Federal Energy Administration official

Dr. Irvin L. White, University of Oklahoma

Governor Calvin L. Rampton, State of Utah

*Summaries of the seminars are available at the Office of Legislative Research, 326 State Capitol, Salt Lake City, Utah.

APPENDIX III

STATEWIDE ENERGY SEMINARS SPONSORED BY THE JOINT LEGISLATIVE COMMITTEE ON ENERGY POLICY

Participants in the energy seminars were:

- John G. Winger*, Vice President and Division Executive of the Chase Manhattan Bank
- Dr. Robert Williams*, Princeton University Center for Environmental Studies, Research Scientist
- Dr. George R. Hill*, Electric Power Research Institute, Palo Alto, California
- Dr. C. Dean Allred*, Marathon Oil Company, Littleton, Colorado
- J. Hunter Chiles*, Manager, Energy Supply and Analysis, Westinghouse Electric Company, Pittsburgh, Pennsylvania
- Dr. Richard Balzheiser*, Director, Fossil Fuel and Advance Systems, Electric Power Research Institute, Palo Alto, California
- Neal P. Cochran*, Energy Research Development Administration, Washington, D.C.
- Robert McClements*, President, Sunoco Oil Company, Dallas, Texas
- Dr. John S. Gilmore*, Industrial Economics Division, Denver Research Institute, University of Denver
- Dr. James H. Wright*, Director, Environmental Systems Department, Westinghouse Electric Corporation, Pittsburg, Pennsylvania
- Dr. Henry R. Linden*, President, Institute of Gas Technology, Chicago, Illinois
- Carl E. Bagge*, President, National Coal Association, Washington, D.C.
- Dr. Elroy Nelson*, Consultant, First Security Bank, Salt Lake City, Utah

JOINT LEGISLATIVE COMMITTEE ON ENERGY POLICY

Membership

- Jefferson B. Fordham*, Co-Chairman —
President, Utah Environment Center
- Edward T. Beck*, Co-Chairman—State Senator, District 11
- Genevieve Atwood* — State Representative, District 1
- Sidney G. Baucom* — Utah Power and Light Company
- David L. Bigler* — United States Steel
- Omar B. Bunnell* — State Senator, District 27
- Richard J. Carling* — State Senator, District 3
- Dale C. Carpenter* — Director, Division of Industrial Development
- Jack Christensen* — Utah Mining Association
- Ernest H. Dean* — State Senator, District 14
- Mike Dmitrich* — State Representative, District 65
- J. Lynn Dougan* — Equity Oil Company
- Fred W. Finlinson* — State Senator, District 8
- John M. Garr* — State Representative, District 70
- Jean 'Pete' Hamre* — League of Women Voters
- James V. Hansen* — State Representative, District 54
- Gordon E. Harmston* — Director, Department of Natural Resources
- Alberta Henry* — Salt Lake City Board of Education
- Hollis Hullinger* — Mayor of Roosevelt, Utah
- S. Garth Jones* — State Representative, District 74
- Alvin Joseph* — Utah Building Trades
- James Edwin Kee* — State Planning Coordinator
- Perry T. Larsen* — Weber State College
- Alice L. Lund* — Women's Legislative Council
- Merrill R. MacDonald* — Kane County Commissioner
- Roger A. Markle* — President, Western Division,
The Valley Camp Coal Company
- Harold T. Newman* — State Representative, District 29
- Ray Nielsen* — State Representative, District 69
- Warren E. Pugh* — State Senator, District 9
- Glade M. Sowards* — State Representative, District 68
- June Viavant* — Sierra Club
- Ray P. Work* — Mountain Fuel Supply Company

ACKNOWLEDGEMENTS

In early 1976 the Utah Legislature suggested that Governor Calvin L. Rampton aid in establishing a State Energy Policy Committee to foster prudent development of Utah's abundant energy resources. Receiving enthusiastic support for the idea from Utah businessmen, the Governor appointed appropriate members of the executive branch plus citizen members representing varied community and state interests to work with the Legislature in determining policy to be followed by the State of Utah concerning energy and energy fuel needs in the state.

In June, 1976, Governor Rampton's eighteen appointees joined fourteen legislators in establishment of the Joint Legislative Committee on Energy Policy, immediately initiating a series of full-day weekly meetings. Due to the complexity of the energy problem and the need to instruct the general public, as well as the blue ribbon panel, on matters of engineering, economics, environment, social impacts and law relating to a Utah energy policy, a unique study approach was adopted.

Simultaneously with the committee's deliberation, eight energy policy seminars were scheduled. The seminars were planned and conducted by a committee having the services of the University of Utah, Utah State University and Brigham Young University. Nationally known experts on energy and its component fields were invited to take part in the seminars during July and August. To better inform the public, one hour of each of the eight seminars was televised and telecast by KUED, enabling viewing in all parts of Utah. In addition, very extensive coverage of each session was provided by the state's newspapers and in regularly scheduled television and radio newscasts. A special effort was made to stimulate letters to the Energy Policy Committee from viewers watching the seminar telecasts. (Appendix II contains a list of seminar participants.)

In addition to the televised seminars, the Energy Policy Committee met in more than a dozen sessions to hear state-

seminars which they can conveniently arrange to attend and to read carefully all reports issued by and as a result of such seminars.

5. During the period the seminars are being conducted, members of the committee are requested to maintain open minds regarding the subject of energy policy. At the conclusion of the seminars and such additional studies as the committee may decide to assume, the task of writing an energy statement should be undertaken. In this regard it is recommended that the committee designate a smaller drafting committee to devise language to bring back to the whole committee for consideration. During the time the committee is in existence and prior to the issuance of a final report, it is recommended that the members make no public statements regarding the stage of their deliberations or regarding the state of mind of any committee member. When the final report is issued, if it happens that one or more of the committee members is not in concurrence with the final report, such member or members may issue dissenting or supplemental statements setting forth their point of view.
6. Staff for the committee will be furnished by the Utah State Legislature. If additional staff is required, the request should be made to the Governor by the chairman of the committee. Legislative members of this committee will be paid for their services according to rules of the Legislature covering interim committees. Non-legislative members will not be paid a per diem but those who travel to the committee meetings from outside the city in which the committee meeting is held, shall be entitled to travel allowance as are other state employees.
7. Subsequent meetings of the committee shall be held at such times and places as the committee itself may decide or as may be designated by the co-chairman in the ab-

- a. The need of the nation for energy and energy fuels.
 - b. The quantity and location of energy fuels and other energy sources within the State of Utah.
 - c. The need and means to protect the natural environment of the people of the State of Utah.
 - d. The most beneficial use of Utah's water resources.
 - e. The effect on the economy and the social structure of the State of Utah of the development of energy and energy fuels within the state.
 - f. The relative roles of the government of the State of Utah, local units of government and the private economy in the development of energy and energy fuels.
 - g. Means of achieving coordination with the United States Government and the governments of other states in the adoption of energy policy.
 - h. The feasibility of special energy development projects, such as the proposed energy corridor.
 - i. Such other matters as may appear to the committee to be germane to the above specific charges.
4. Contemporaneously with the deliberations of this committee a series of seminars on energy policy will be scheduled in the state of Utah by the Graduate Divisions of the University of Utah, Brigham Young University, and the Utah State University. While the seminars will be planned and conducted by a committee other than this one, there will be interlocking membership by this committee and the seminar committee in order that membership of this committee may make recommendations as to the subject matter of the proposed seminars. The public-at-large shall be invited to attend and participate in the seminars. Assurance has been given that the news media will give extensive coverage to the seminars in order to bring them to the attention of the maximum number of people in the state of Utah. While it will obviously be impossible for all members of this committee to attend each of the seminars, committee members are requested to attend all

ments from representatives of Utah industries, Utah communities and counties spokesmen for federal agencies, state officials, and representatives and officials from communities in neighboring states. (Appendix III contains a list of speakers at these sessions.)

After preparing a preliminary policy report, the committee conducted ten public hearings throughout the state to obtain citizen input. Following the hearings the policy report was revised to reflect the concerns of the citizenry. (Appendix IV contains the schedule of the public hearings.)

This document contains the committee's principle conclusions. It also outlines the basic energy policy the committee recommends the Utah Legislature adopt as a guide for the state and its local political subdivisions for present and future energy development and consumption. (Appendix V contains a dissenting statement.)

Appreciation is extended to all who contributed to the preparation of this policy report, especially to the Energy Seminar Steering Committee whose assistance in planning and carrying out the seminars for the committee was most valuable in the development of the policies. Members of the Seminar Steering Committee are:

Jack W. Gallivan (Chairman) — Salt Lake Tribune
Edward T. Beck — State Senator, District 11
Ian Cummings — Terracor
Jack Dunlop — University of Utah
Jefferson B. Fordham — Utah Environment Center
James Edwin Kee — State Planning Coordinator
Alice L. Lund — Women's Legislative Council
Dean Peterson — Utah State University
William B. Smart — Deseret News
Robert Temple — KUTV
Leo Vernon — Brigham Young University

Special appreciation is also extended to the Drafting Subcommittee who, under the direction of the Joint Legislative Committee on Energy Policy, played a vital role in the development of the policies, rationale and recommendations contained

in this publication. Members of the Drafting Subcommittee are:

Roger A. Markle (Chairman)
Genevieve Atwood
J. Lynn Dougan
John M. Garr
James Edwin Kee
Alice L. Lund
Warren E. Pugh
Ray P. Work
June Viavant

Additional thanks is also given to:

Reed T. Searle — Staff Director
Rodney D. Millar — Energy Consultant
Jack Goodman — Seminar Reporter
Joan B. Thomas — Secretary

Funding for the televised energy seminars and for the preparation of the seminar reports was provided by the Seminar Steering Committee through contributions from private citizens and businessmen from throughout the state.

INTRODUCTION

Utah is extraordinarily well blessed with energy resources and is unique among all the states in its broad spectrum of energy resources. No other state in the nation and perhaps no other land mass in the world of comparable size possesses the sizeable amount of all major energy resources as does Utah.

Obviously, therefore, as far as energy resource development in Utah is concerned, it is no longer a question of whether our resources will be developed, but rather, it is a question of when and to what extent they will be developed. Utah and its neighboring Rocky Mountain States, with plentiful coal, oil shale, uranium and geothermal resources, provides the long-term possibility for the nation to overcome its overall energy deficiency.

While the Federal Government will generally control the

APPENDIX II

GOVERNOR'S RECOMMENDATIONS TO THE JOINT LEGISLATIVE COMMITTEE ON ENERGY POLICY

1. This committee shall be known as the Joint Legislative Committee on Energy Policy. It will operate as a subcommittee of the Economic Development, Business and Labor Committee.
2. Although the committee is a subcommittee of the Legislature, because of the broad public interest in this matter, the Legislature has requested the Governor to appoint to the committee appropriate members of the Executive Branch of Government, as well as citizen members representing the community-at-large. This has been done. Senator Edward T. Beck, the chairman of the Economic Development, Business and Labor Committee, has requested that the Governor designate a citizen member to serve as co-chairman with Senator Beck. Pursuant to this request, I have designated Jefferson B. Fordham to serve as co-chairman.
3. The assigned role of this committee is to consider what policy should be followed by the State of Utah and its political subdivisions in regard to the development of energy and energy fuels in the state. It will be the duty of the committee to put in writing a proposed energy policy statement to be presented to the Economic Development, Business and Labor Committee and by that committee, in turn, to the full Legislature for the adoption, rejection, or modification as the Legislature may see fit.

In recommending such energy policy, the committee shall consider:

consideration by an independent committee. This is pertinent as far as it goes.

What is directly of moment to this committee is conservation at the production and processing stages. Just what the state policy measures to serve this end should be is not something that this member is qualified to say. The point to be made is that there should be appropriate legislation and administration directed to resource protection through conservation practices at the production and processing stages.

10.

Public Finance

An objection to use of service districts has already been stated. It is reiterated here. Financial aid should go to general function units of local government with a view of relating finance to policy-making authority of adequate reach to serve the public interest.

More specifically, the recommendation that the Legislature authorize the levy of local option taxes should make it clear that severance taxes are included in view of the nexus between resource extraction and local government services and financial needs.

Federal funds received in lieu of taxes on federal lands in the state, under a recently enacted federal statute, are designed to augment the general funds of governmental units and should not be earmarked in advance for purposes related to energy development.

I invite any member of the committee who is of like mind to join with me in this statement.

of the lands of Utah, it is incumbent that the state assist the people engaged in the development of these resources to have reasonable access to the mineral lands and site locations for the extraction and processing of these resources within its borders be they state or federal lands.

The state also has an appropriate role in providing guidance and support in energy resource developments so that the people throughout the state as well as those engaged in energy resource developments can be provided the considerations of a socially and economically good life. Industrial development, especially energy resource development, brings money and employment to the state; but it also can bring pollution of our air and water and cause spoilage of our lands. The environment must be preserved in a way which recognizes the balancing of social and economic benefits with environmental costs. It is equally important that Utah and its citizens receive a fair return for their contributions to the reduction of the nation's energy deficiency.

Achieving these and other related objectives presents a complex challenge but one which the Joint Legislative Committee on Energy Policy believes can be accomplished if the Legislature adopts the numerous policy statements and recommendations prepared by the committee. The Economic Development, Business and Labor Committee has approved the policies and recommendations for introduction to the 42nd Legislature and has prepared several bills and resolutions designed to implement a number of the policies and recommendations.

It should be noted by those evaluating the policies and recommendations that they are based upon a conclusion reached by the Energy Committee that the state and the nation face serious and impending shortages of energy in the future and that immediate action is required by both state and national officials to promote development of the natural resources of this nation and to encourage conservation of existing energy. Thus, the Energy Committee intends that the citizens of this state and its Legislature give prompt and serious consideration

to the committee's suggestions and that business and industry incorporate the policy guidelines into their plans and operations.

It is not clear at all that the Public Service Commission as constituted and functioning under existing legislation is serving the general welfare as well as it should. There should be a thorough policy review. It would be a bit off track for the instant committee on energy policy to undertake the needed study, but surely there is basis for the committee to identify the need.

Just one further point will be made here. The utilities and the consuming public are not on an even footing in the process of utility regulation. The utilities not only live with the data but also are able to pass the cost of pressing their cause before the commission on to the ratepayers. In a word, the consumer pays for utility representation against him. The public interest would be served by an amendment to the governing statute which would establish an office of consumer advocate and accord it adequate authority and financial support to represent the general public on an even advocacy footing with utility representatives.

As for energy prices in the competitive sphere, I say again that a bald rejection of government regulation of prices is insupportable. In general a free market approach has much to commend it, but there may be conditions in which government has solid basis for taking action affecting prices directly or indirectly. Thus, I think that a committee position as to energy pricing other than in the public utility field might well lay primary stress upon regulation by the market but not to the exclusion of government regulation to serve the community's energy needs in broad policy perspective as conditions demand or strongly indicate.

9.

Energy Conservation

The majority report is concerned with conservation at

pricing based on the cost of providing electricity when needed. The value of service theory stresses demand which relates price to willingness of customer to pay. Broadly conceived, value of service perceives value in terms of value to society in general, that is, it recognizes social objectives in pricing, whether inducement to industry, aid to persons of low income, or what not. (See Taubman and Frieden, *Electricity Rate Structures: History and Implications for the Poor*, Social Goals of October, 1976.)

I do not accept the position of the majority report that social policy considerations should not be taken into account in utility rate-making. The whole process is, in broad terms, an expression of social policy. The report asserts that government assistance for the needy is for a welfare department which, I note, depends upon tax revenues as appropriated. I reject unequivocally the position that public response to the energy requirements of the needy must come only through welfare services. I suggest that a supportable public policy directed to assuring that all who need residential utility services get them may be implemented, in substantial part, at least, by public exaction of favorable rates for persons, elderly or otherwise, of demonstrated financial insufficiency. One method of doing this is to pursue the well-known life-line concept, which bespeaks favorable residential rates for the economically disfavored. This policy has been rejected by the Public Service Commission with respect to electric service. Such a method has much to commend it. Resort to it would result, of course, in some redistribution of the rate burden in order to accomplish the basic purpose of assuring distribution of service in keeping with all components of human needs.

The present rate dispensation favors the largest consumers on the basis of lower unit price for volume demand and consumption. This has the interesting aspect of favoring major economic activities that generate ecological problems for all of us.

COMPREHENSIVE ENERGY POLICY FOR UTAH

No single factor has been more central to the development of the United States as a world power and to the living standards and aspirations of its citizens than a reliable, adequate and generally available supply of energy in multiple forms and at low prices. The committee recognizes that the state and the nation face serious and impending shortages of energy in the future. Immediate action will be required to promote conservation and development of the nation's energy resources and to promote the wise use of existing energy in order to meet this challenge. Inasmuch as substantial undeveloped energy resources lie within the boundaries of the State of Utah, it is appropriate that the State of Utah adopt energy policies that will be in the best interest of the nation and the citizens of Utah.

Similarly, the committee recognizes the great wealth of scenic and recreational resources situated within the boundaries of the state and the responsibility of the state to preserve these resources, to develop them for the benefit of the people of Utah and to make them available for the use of all people of all generations.

The committee recognizes that the energy needs of the state and nation are inextricably tied to population's demand and economic realities, and that society's attitudes and expectations in this regard are the foundation of our energy policy. The committee also recognizes these attitudes and expectations may change and necessitate a reexamination of this energy policy.

The nation's current increasing dependence upon foreign energy sources and its reliance upon the nation's least abundant energy resources, oil and gas, place the nation in jeopardy from government actions abroad that are not in the best interests of the United States and from potential energy blackouts at home. The state cannot by itself set an energy policy. International events and economic and pricing policies are outside the state's influence; furthermore, it is recognized that coopera-

tion and coordination between federal, state and local governments and industry are essential to achieve orderly energy resource development.

Utah is in the somewhat enviable position of having its electricity produced from coal-fired and hydroelectric plants rather than from oil and gas-fired plants and therefore should be better off than most areas in terms of resource availability. Currently, energy prices in Utah compared with the rest of the nation are low. In the future, as the world price of oil rises and the costs of producing fossil fuels increase, all energy prices will undoubtedly rise in spite of such energy saving measures as conservation and in spite of increased production of in-state resources.

Conservation of energy for economic and availability reasons is of paramount importance and a separate state committee is in the process of formulating a state conservation plan. It is questionable, however, whether conservation alone can reduce the growth in energy demand significantly without basic changes in American lifestyles and standards of living. Therefore, energy development must occur and should be designed to protect the natural and scenic value of the state for future generations.

While development of all Utah's energy resources, both renewable (solar, geothermal and wind) and nonrenewable (oil, gas, coal and synthetic fuels) are viewed as desirable, it is recognized that a major portion of the state's and nation's increased energy demand should be met by increased coal production. This coal development should, where possible, be utilized for in-state electric generation and for the development of a diversified state industrial base; however, exportation of the raw material should also be sought where such exportation brings the greatest net benefits for the welfare of Utah citizens.

In order to encourage development, Utah should aggressively seek out and develop for maximum public benefit its undeveloped water resources so far as may be consistent with

"The state has a responsibility to preserve natural and scenic values in a way that protects the public health, safety and general welfare, and, at the minimum, must enforce environmental standards established by or under federal law."

Rationale "d" supporting policy proposal 21 has no proper place in the report. It is nothing but a gratuitous attack upon our Federal Government.

The rationale for policy proposal 23 should be brief and direct. It might well be: "This is a simple matter of protecting important and enduring values."

The statement in rationale "a" that Utah policy is to encourage the development of all of its resources is far too broad and should not appear anywhere in the report. The genus homo is a trustee for all of nature and that means careful selective action with respect to development.

8.

Energy Pricing

The majority report is badly misconceived in its treatment of energy pricing.

I speak first of the public utility sphere. Express reference to utility rates has been eliminated from the report but the general language appears to cover such pricing. To say that utility rates should be determined by total costs and marketplace conditions is indefensible since we are talking about business that functions as a monopoly without the private sector regulatory force of competition. Government regulation under such conditions is absolutely necessary in the public interest. Government takes account of costs, of course, but in doing this it decides what are the legitimate costs for rate-making purposes. It decides, moreover, what may be charged to yield a reasonable return on investment. Utilities perform semi-public services; they are instruments of public policy.

In utility pricing policy there are several well-developed

The compelling reasons for this are that only a general function unit can take an overview and relate a function to community development and public services generally. Financing is ancillary; it should not be controlling as to distribution of governmental responsibility and authority. Use of special function units is almost certain to compound problems for the future.

Rationale "d" supporting policy proposal 14 of the report is sheer parochialism. There is no basis for saying that the Legislature should not, by general law, establish minimum requirements for local response to community needs generated by industrial development.

The condition of Utah law with respect to change in local government jurisdiction cries for policy reexamination and legislative action. For example, the present statute governing annexation of territory to a municipality is void of policy content. The prospect of industrial development near an existing city or town clearly invites legislative action that would enable redrawing of jurisdictional lines under guiding legislative standards.

6.

Exploration and Leasing

Policy proposal 15 is too dogmatic in declaring that state determined goals should control policy as to exploration and leasing policy in relation to federally owned land in Utah. Federal policy is to promote the national interest with respect to a national asset and state regulation should be subject to the superior authority of federal policy determinations as to development of federally owned mineral lands in Utah.

7.

Environmental Protection

Rationale "b" supporting policy proposal 18 of the majority report should be more positive about state responsibility.

proper development of Utah's in-state water and its interstate water allocations are necessary to provide water for Utah's increasing population as well as for agriculture, industry and energy development.

Energy resource development can result in many benefits for the state, including jobs for Utah's increasing population, increased tax and royalty income and increased economic prosperity for its citizens; however, there can be negative aspects to development, particularly in its initial phases. State and local governments must prepare for the impacts of energy development. This means assuring a proper financial base to allow local governments to provide adequate public services for the expected increased population caused by energy development. The state should help local governments assess the impacts of proposed development and provide technical and financial assistance to local communities.

Environmental constraints often imposed by the Federal Government impose limits to energy development. Utah's environmental standards should be related to the needs of its citizens while recognizing valid interstate concerns. The state should assume an active role in the administration of environmental requirements. In general, the state should encourage the siting of industrial development in areas which do not conflict with those having special historic, scientific, archeological, natural or scenic significance. It should immediately analyze the feasibility of establishing "energy corridors" in the state.

The State Energy Policy will need to be updated periodically and the implementation of a policy must be coordinated with state agencies. Currently, there is too much fragmentation in development and administration of state energy policy. A standing energy policy committee should be established, composed of selected private citizens and representatives from state agencies having responsibilities related to community affairs and energy development. This committee should coordinate energy programs and develop recommended energy policy for submission to the Governor and Legislature.

1. *The state should recognize its responsibility to facilitate the availability of energy to meet the needs of its citizens and to assure meaningful jobs for Utah's growing population.*

RATIONALE:

- a. The population of the state is growing through a high level of natural increase and through significant immigration.
- b. Additional energy will be required to provide jobs for and to meet personal energy requirements of Utah's population.

RECOMMENDATIONS:

- a. The state should accord priority in consideration to those projects which are pending before each federal agency and the state and its congressional delegation should help expedite the early conclusion of action.
 - b. Utilize a part of the state's "in-lieu" lands and select land blocks to be used for energy production and industrial purposes in areas such as the proposed Green River energy corridor.
 - c. The Legislature should memorialize Congress: (1) to establish a uniform procedure for all federal agencies to follow on a proposed change in mineral entry status, which provides for full public notice and input from industry, state and local governments, and the general public, and (2) to require a technical reevaluation of mineral potential on all significant withdrawals and a periodic reassessment to determine whether the lands should remain withdrawn from mineral entry status.
2. *The state should encourage the diversification and dispersion of energy demand by attracting various types of industries and by encouraging the locations of industries in areas outside the Wasatch Front.*

This much can be said — there should be strong stress upon conservation of water resources. In this view, there is a question whether conveying coal beyond the state via slurry pipelines would be wise action. It might involve less water than a generating plant in Utah but that is not the only other choice. Obviously, there are many water uses including agriculture. Thus, other means of transport are to be considered. In any event, adequate water resource policy must take into account protection of water quality and the relation of water to the rest of the natural order and the whole range of human interests in water.

The concept of prior appropriation may have had not insubstantial policy basis in an earlier day. In contemporary perspective such ideas are totally at odds with any larger view of water as a basic community asset to be utilized, within protective restraints, in ways that best serve the larger interests of man with pervasive respect for the natural order. It is suggested that thorough legislative review of governing water law in Utah is much in order. In such a review the following questions might well be confronted:

- 1. Is there need for further shaping of policy and process as to developmental and other uses of unallocated water?
- 2. Is there need for legislative action regulating acquisition of allocated water for development?
- 3. Can significant storage be effected consistently with interstate water compact provisions?

5.

Local Governmental Structure and Jurisdiction

The report encourages use of special service districts with particular concern for financing local facilities and services in relation to energy development. This is ill-considered. The stress should be upon meeting community development needs through general-function or purpose units of local government

between government and private enterprise is indispensable but more must be said. The requisite community planning, broadly conceived, is a function of the organized community—of government—and any more limited approach is asking for an excessive share of “the ills that flesh is heir to.”

There is an anti-federal aura in the majority report that is quite unfortunate. Be that as it may we cannot reject federal jurisdiction. And, at this point, it is to be observed that the Federal Clean Air Act and the Federal Water Pollution Control Act of 1972 operate to a notable degree as national land planning and land use regulation measures that condition industrial development in Utah. Section 208 of the latter act contemplates what amounts to a regional land use plan.

3.

Job Training and Education

It is not clear that this subject has any place in the report. In any event, the report has values badly skewed. Its thrust is to favor job training as compared with general education. What does it avail to make money without regard to the cultivation of the human mind and spirit? In this perspective I object with all possible force to the recommendation that integration of career education into the public school curriculum be required and to the recommendation that the Legislature scrutinize educational budgets and mandate a closer relationship between educational courses and job needs of the state. It is shocking to have such stress in the context of the general level of literacy. What *is* needed is the enrichment and strengthening of general education to the end that the quality of life will be lifted.

4.

Water

One with only an eastern water law—riparian rights—orientation approaches this subject with particular caution.

RATIONALE:

- a. The economy of the State of Utah will be strengthened by attracting various energy-consuming industries which are environmentally acceptable under state and federal laws. This will tend to increase the standard of living of Utah residents.
- b. Location of energy consuming industries in areas of the state away from the Wasatch Front will improve economic conditions and increase wage levels in areas of the state that have traditionally been economically depressed thereby increasing the economic level of the entire state.

3. *Light industry and other secondary industries should be encouraged to locate in Utah to provide a stable in-state market for energy produced within the state, to provide a stable employment base and to make certain the value added by manufacturing occurs (and is taxed) in Utah.*

RATIONALE:

- a. Secondary industry tends to be more stable in terms of employment and output than primary industries producing raw materials.
- b. The location of secondary industries within the state will significantly increase the tax base available to state and local governments.

RECOMMENDATION:

- a. Authorize an increased funding appropriation to the Division of Industrial Development to attract light and secondary industries to the state.

4. *The state should make a greater effort to develop and train its residents to meet energy-related jobs and should develop specific plans for meeting employment training goals with particular attention given to under-trained people in the inner cities and depressed rural areas.*

RATIONALE:

- a. Energy-related employment demands in Utah will increase in the foreseeable future. There is an urgent need to assess emerging employment demands, to catalog resources and to develop plans for training programs so that Utah residents can take advantage of employment opportunities.
- b. There is a vast pool of untrained people in the Utah population. A large number of potential trainees are unemployed or underemployed because of lack of proper training and skills. Particular attention should be given to those people in the inner cities and depressed rural areas.
- c. Even without the impact of major energy development, Utah is experiencing a shortage of skilled people in jobs requiring vocational education and training. There is a shortage of machinists, secretaries, diesel mechanics, carpenters, electricians, nurses, auto mechanics, welders, plumbers, meat cutters, air conditioning mechanics and other skilled craft people.
- d. In spite of the shortage of skilled people, unemployment in Utah during 1975 was 7.4 percent, which was the highest percentage in the past twenty years. The average number of unemployed people in the state was 38,000. Among these 38,000 unemployed there are some who could be employed after receiving job training. These unemployed people will not be available to take the skilled jobs which will arise as the energy

a basis that is as wide as the reach of the subject of action. Plainly, any substantial energy development is going to bear upon a great complex of factors and interests that reach far beyond the physical bounds of the development and the local governmental unit or units in which it is to take place. Local planning and zoning are not enough. Nor would state action confined simply to siting be sufficient. The majority report eschews even siting regulation. Who cares that much about the larger public interest, the report says, in effect. What is needed is state planning and regulation not simply of industrial siting but of all developments of state or intrastate regional or interstate regional concern and a cognizant state regulatory agency.

What has been said has particular reference to the concluding section of the majority report.

That a weak state land planning and land use regulation measure was rejected by the voters in Utah in 1974 is hardly the last word on the subject. The people deserve leadership that will give them adequate perspective of an issue of public policy. One recalls a line in the Book of Proverbs — "Where there is no vision, the people perish."

In 1974 there was much unthinking talk about one's rights to use his or her property as one pleases. This has never been the case in this country. It is elementary in our system that land ownership exists only under the legal system of politically organized society and that one may use his or her land only in ways that do not unreasonably affect others. In the complexities of the sort of society that exists in this state and country it is nothing short of primitive to reject land planning and regulation by government of adequate jurisdictional reach. All private land access and use depends upon public facilities and services. Only government can take the requisite overview.

The social problems that will inevitably attend substantial energy development should be very thoughtfully considered at a comprehensive planning stage. This means that cooperation

Most of the economic activity in this country is in the private sector, but all of it is subject to appropriate regulation in the larger public interest. This is plainly the case with energy extracting, processing and distributing activities whether conducted by public utility corporations or not.

At this point I wish to pursue my point with particular reference to growth. What uncontrolled population increase in the state, stimulated by strongly encouraged energy development, means to me is something that could, in the end, be a condition in the body politic like uncontrolled cell growth in the human organism—societal cancer. From my home well upon the north side of Salt Lake City I looked down the morning of the day this was being written upon a heavy blanket of dirty smog—the product largely of business activity and motor vehicles. Yes, we are working upon control of emissions, but is that enough?

Utah is in a relatively favorable position to comfort, to shape, her destiny. While population growth is at a brisk and accelerating rate and residential and other development is increasing rapidly, the state is still in a position to influence effectively the course of affairs. The majority report appears to take large population growth as a given and notes that this creates need for additional energy. Does all this have to be? Where is the demonstration that this is “good”—either for people or the natural order in general?

2.

Energy Development in an Adequate Land Use Planning and Regulation Context

The report takes far too limited a view of this basic aspect of energy development. It is largely committed to local planning and regulation. This is myopic in the extreme. It is fundamental to effective policy-making and execution by organ-

resources are developed unless steps are taken to provide them with the skills required.

RECOMMENDATIONS:

- a. The State Manpower Office, Board for Vocational Education and Department of Employment Security should assess on a continuing basis emerging job demands in the state and recommend to the Manpower Council and Legislature a plan to meet those demands.
- b. The Legislature should require that career education be integrated into the public school system.

5. *The state should seek to phase out those job training programs which are not geared to meet existing and projected job markets.*

RATIONALE:

Continuation of low utility training programs is caused in part by:

- a. Budgets approved on the basis of percentage increases of previous budgets rather than on job opportunities.
- b. Federal funds, as dedicated credits, restrict the effect intended for these funds which is to stimulate expansion and program change.
- c. The lack of incentive for institutions to phase out questionably productive programs.

RECOMMENDATION:

- a. The Legislature should scrutinize education budgets and mandate a closer relationship between vocational education courses and job needs of the people of the state.

6. *The state should provide residents in rural Utah with improved access to training facilities and programs that are geared to the area job markets.*

RATIONALE:

- a. The energy growth in rural Utah counties can be an additional source of economic benefit and jobs for the

unemployed if sufficient planning and preparations are made to assure training for the jobs to become available.

RECOMMENDATION:

- a. Vocational training programs should be increased in rural areas of the state which are expected to receive energy development.

APPENDIX I

MINORITY REPORT

Jefferson B. Fordham and Alice L. Lund

I have had a very pleasant association with my committee colleagues and I wish that we were seeing eye-to-eye on Utah energy policy. There are some good ideas in the majority report, which I embrace, but there are sharp differences between me and the majority both as to fundamentals and particular recommendations. Thus, I have no honest choice but to dissent.

1.

The Elements of Values and Policy Objectives

The report lacks basic value commitment and value-directed policy objectives. It simply and expressly assumes that "society's attitudes and expectations" with respect to "population's demand and economic realities" are the foundations of our energy policy. Of course, public opinion is not to be ignored but there are two things to be said about this. There is no clear and reliable indication of "society's attitudes and expectations." Even if there were, it is emphatically the function of leadership to lift the sights of the community about the commonwealth rather than follow blindly assumptions about societal values and policies that do no credit to the human spirit. Materialistic trappings are one thing; the quality of human life is quite another.

Motorcycles, dune buggies and snowmobiles are examples of energy-consuming equipment that is used in ways quite damaging to the natural order. There is at least rather general Utah community acquiescence in such use. One is hardly prepared to grant that this bespeaks the imprimatur of an energy policy committee.

- 7) Examining the feasibility and desirability of establishing energy corridors
- 8) Providing leadership in state energy conservation planning and implementation

WATER

7. *Although the state does not have unlimited water for energy development, a portion of its underutilized and unallocated water, which is sufficient to support substantial energy development, should be used for that purpose.*

RATIONALE:

- a. Water will not be a binding constraint on Utah energy development in the foreseeable future because of unallocated Colorado River water and allocated water that can be upgraded to a higher value use.

8. *The state should aggressively develop uses for its interstate compact water allocations to insure availability of this water to the State of Utah.*

RATIONALE:

- a. Although Utah has significant Colorado River water allocations, much of this water is not being used in Utah. The state should make a substantial effort to assure that Utah's water allocations will not be used by other states.

RECOMMENDATION:

- a. Memorialize Congress to authorize and fund the Virgin River Project, the White River Project and various units of the Central Utah Project on an accelerated basis.

9. *The state should aggressively seek out and develop for optimum public benefit its undeveloped water resources so far as may be consistent with economic, social and environmental values.*

RATIONALE:

- a. Utah has significant water resources that are underutilized or undeveloped within the state. The develop-

ment and beneficial use of these resources within the state would benefit the citizens of Utah.

- b. The principal overriding constraint to increased utilization of Utah's water is lack of money for construction of storage and regulation works to control the erratic flood flows and provide long-term storage for yearly variations of supply.
- c. Financial capability is the largest single deterrent to water development. Federal funding will not be available in quantities required and private industry cannot be expected to carry the public share.
- d. The Legislature has responded to the report of the Board of Water Resources "*The State of Utah Water - 1975*" and has by resolution directed a study on the methods of financing large multiple purpose projects. This report will be presented by the Board of Water Resources in January, 1977.

RECOMMENDATION:

- a. Give legislative consideration to the expenditure of current funds and to the authorization of state bonding for the development of major water resource projects, either partially or fully owned by the state.

10. *Although Utah has unallocated and underutilized water, the state should encourage energy development and industrial projects that use water efficiently.*

RATIONALE:

- a. Before allocating Utah water for an energy project, the consumptive use of the water in the production, conversion and transmission phases of the energy development should be studied to evaluate the most efficient use of the water. For example, the transmission of coal via a slurry pipeline for conversion to electrical power outside the state may result in the consumption

tion by industry, need to be considered on a specific case-by-case basis.

- d. Cooperation and coordination between governmental units within counties and between counties need to be encouraged because problems associated with energy development often cross city or county lines.

ADDITIONAL RECOMMENDATIONS:

- a. The state should reduce the number of permits required and expedite the industrial permit system. The following should be considered:
 - 1) Necessity of existing permits required
 - 2) Periodic review of the continued necessity of given permit systems
 - 3) "One stop" permit systems
 - 4) Central source of coordination of state permits
 - 5) Industrial "ombudsman"
- b. An energy policy committee should be established, composed of selected private citizens and representatives from state agencies having responsibilities related to community affairs and energy development. The committee should coordinate energy programs and develop recommended energy policy to the Governor and Legislature. A small professional staff should assist the energy committee. Responsibilities of the committee and staff would include:
 - 1) Coordination of energy resource data collections
 - 2) Projections of state energy demand
 - 3) Analysis of the effects of proposed energy development
 - 4) Recommending changes in federal and state laws or regulations
 - 5) Monitoring federal legislation and existing regulations on energy development
 - 6) Representing the state at interstate and federal

role of allocating fuel. For the last couple of years it has been inactive although it is now being used as an advisory group in the development of a state conservation plan. Its function has not been general coordination of energy programs or development of general energy policy recommendations.

RECOMMENDATION:

- a. The state should continue to provide financial and technical assistance to enable local governments, both cities and counties, to prepare for growth caused by energy development through programs such as the Federal Resource Development Coordination Program.

44. *Local governments, both cities and counties, have the joint role with State Government in site-specific planning for industrial development, area land use regulation and the provision of community services.*

RATIONALE:

- a. The organization of local planning councils in areas impacted by energy development has proven effective in the coordination of energy development and preparation of plans between industry, government agencies and the general public. Organization of these cooperative organizations is under local option and control.
- b. Specific land use decisions and growth management for a community need to be determined by local government officials who are responsible and knowledgeable regarding their communities' circumstances and goals.
- c. Provision of local public services is a function of local government which can most accurately assess priorities to maintain community values and its quality of life and ability to finance services. Financial arrangements, such as special service districts and participa-

power in-state and the transmission outside the state by power lines.

ADDITIONAL RECOMMENDATIONS:

- a. Authorize the Division of Water Resources to prepare a feasibility study for a water supply system for the proposed Green River energy corridor area and determine the cost of such a supply system. Authorize, simultaneously, the State Engineer to study and report on the availability of water for the proposed Green River corridor area.
- b. Increase appropriations to both the Utah Water and Power Board Construction Fund and the Municipal and Improvement District Water System Revolving Fund.

TAX AND FISCAL

- 11.** *The State of Utah should devise a tax and fiscal structure related to resource development which provides for the social and physical costs of community problems created by energy development.*

RATIONALE:

- a. Major industrial or energy developments generally create a higher standard of living and improved socio-economic conditions of the community in which they are located; however, in the initial phases of that development local governments may be hard pressed to meet adequate housing and public infrastructure needs of the increased population resulting from that development.

RECOMMENDATIONS:

- a. Disburse that portion of federal royalties designated for spending in areas impacted by energy development.
- b. Amend the Resource Development Act as follows:
- 1) To broaden the scope of infrastructure which can be financed under the act to include facilities in addition to roads and schools.
 - 2) To provide for interest accrual on prepayment of sales and use taxes.
- 12.** *Local governments should aggressively and cooperatively explore the existing alternatives available to them to provide the funding for increased services required by energy or other development.*

RATIONALE:

- a. Available revenue distribution mechanisms include the creation of service districts, interlocal agreements (e.g., for the county to assume certain services) and city/county consolidation of government. Associations of government can play a role in planning and coordination.

assessing needs and financing solutions to area problems. In addressing these issues the state should coordinate its own programs and have a unified energy policy.

RATIONALE:

- a. There is considerable fragmentation in energy policy and programs within State Government.
- b. The Joint Legislative Committee on Energy Policy has identified the lack of and need for a unified state energy policy.
- c. Two-thirds of Utah's land area is owned and controlled by the Federal Government and most energy and environmental decisions are made within federal agency and judicial parameters; therefore, coordination of state and local actions with federal agencies is essential.
- d. There is a need for central data collection, mapping and other technical information that might be useful to state and local planners for energy development. Currently, data is kept by various agencies on different scales and is difficult to correlate for proper analysis.
- e. The state needs to develop a capacity to assess energy demand in the state and to collect energy resource data to be aware of development potential. Such information should be made available to state and local government agencies and to industry for planning purposes.
- f. The state has technical personnel and information available to assist local governments, both cities and counties. The availability of this personnel and information and the applicability of such services must be communicated to local governments.
- g. It is noted that an Interdepartmental Coordinating Council for Energy Affairs was established in 1973, within the Department of Natural Resources, with the

ROLE OF STATE AND LOCAL GOVERNMENTS

- 42.** *Cooperation and coordination between federal, state and local governments and industry is essential and must be encouraged to insure adequate planning and financing of energy development and to prevent unnecessary delays.*

RATIONALE:

- a. It is important that industry provide government with advance knowledge of expansion plans, whenever possible, so that proper coordination and planning can occur.
- b. The current industrial/energy permit system in the state leads to unnecessary delays. There is a need to reduce and expedite the permit system.
- c. The county "planning and development" committee concept began in southwest Utah for the Kaiparowits and Alunite Projects has proven to be a valuable planning and coordination tool.
- d. The state-funded Federal Resources Development Coordination Program has proven to be a help to local governments, both cities and counties, in preparing for the impact of energy-related growth.

RECOMMENDATION:

- a. A state commitment to the concept of federal-state interdepartmental coordination committees, as well as local-state-federal technical advisory committees, should be continued in order to assure maximum communication and coordination between local, state and federal officials.
- 43.** *The state's primary functions should be: (1) to address those issues which have statewide implications, (2) to coordinate actions with federal land management agencies, (3) to work with neighboring states, and (4) to assist local governments, both cities and counties, in*

- b. Counties which may be the beneficiary of an increased tax base due to large-scale energy development have a responsibility to assist cities and neighboring counties which receive the impacts associated with development. A special service district will allow such assistance.
- c. If communities wish to be the beneficiaries of energy development, including new jobs and residents, they have an obligation to provide the necessary infrastructure but may not be able to bear the total cost.

- 13.** *Additional sources of funding to local governments which are impacted by energy development should be provided. Legislative action should insure that these additional funds are available on a timely basis.*

RATIONALE:

- a. Sources of local government funding of energy-related costs associated with development should be supplemented by increasing taxing options open to local governments. Under existing distribution of taxing authority, local governments do not have sufficient capacity to raise needed funds for community problems associated with energy development.
- b. Consideration should be given to amending the State Constitution to permit state revenue sharing with local governments and county government revenue sharing with municipalities and other counties in order to provide assistance to areas impacted by energy development.
- c. Even if localities are provided sufficient taxing authority, there may be a significant revenue shortfall during the initial stages of a relatively large development and there needs to be a method of advancing localities needed funds. The timely availability of funds for capital improvements at the city and county levels will be encouraged by amending the Resource Development Act by broadening the scope of infra-

structure which can be financed under this act and by providing interest accrual on prepayment of sales and use taxes.

- d. Royalties are intended to compensate the citizens of the United States, the citizens of Utah and the local communities for the depletion of their natural resource base. In part, the royalties should be allocated to alleviate some local impacts created by energy and associated industrial development. A new federal coal leasing law enacted by Congress will increase the federal royalties from a five cent (5c) a ton minimum to 12½ percent of gross value and the state's share of royalties, lease fees and bonuses (fees, bids) on federal lands will increase from 37½ percent to 50 percent, the additional funds can be spent at the discretion of states with a priority going to communities impacted by energy development. Since these royalty funds are not taxes within the terms of the State Constitution, these funds should be shared directly with impacted local governments or service districts.
- e. Under a recently enacted law federal funds, in the form of "in-lieu" payments are available to county governments and provide a significant portion of their budgets. However, these funds are not available to impacted cities or service districts.

RECOMMENDATIONS:

- a. The state should provide mechanisms, such as grants, loans, cooperative agreements, local option taxes to make funds available to impacted cities and service districts.
- b. Amend the Constitution of the State of Utah to provide assistance to areas impacted by energy development as follows:
 - 1) To allow the state to share revenue with local governments and special service districts, including grants in aid and loan guarantees

ALTERNATIVE ENERGY TECHNOLOGIES

HYDROGEN

41. *Continued research in the production and uses of marketable hydrogen should be encouraged.*

RATIONALE:

- a. As hydrogen may become a major medium for transferring or storing of energy in the future, Utah's industry should be encouraged to keep pace with this development.

ALTERNATIVE ENERGY TECHNOLOGIES

NUCLEAR

- 40.** *Utah's development of nuclear resources, at present, will be primarily confined to uranium ore mining, processing and waste disposal. The state should assure that such mining, processing and waste disposal is accomplished in a safe manner and will not result in significant adverse health and environmental consequences.*

RATIONALE:

- a. In-state nuclear electric power generation is unlikely to contribute to satisfaction of Utah's energy demand at present.
- b. The concern with tailings from the uranium milling industry stems from the large amounts of these low level radioactive wastes and the potentially hazardous nature of the long lived radioactive elements and other toxic, nonradioactive materials contained in tailings should they become distributed in the environment. The problem of decommissioning uranium mill sites has been and will continue to be a serious one.

RECOMMENDATIONS:

- a. The Legislature should amend the Mined Land Reclamation Act to include all uranium ore milling and processing plants.
- b. The Legislature should evaluate the merits and consider the possibility of state regulation of the uranium industry as opposed to federal regulation.
- c. As technological advances take place the desirability of in-state nuclear power plants may become feasible and should be reassessed.

- 2) To allow counties to share revenue with municipalities, other counties and special service districts.
 - c. Form a "community development authority" which has the authority to borrow money and either loan or grant funds to impacted areas.
- 14.** *Local governments should establish guidelines which will insure that there presently exists, or there is a sufficient plan to provide adequate housing and public infrastructure for the expected increased population caused by large-scale energy or industrial development. State government agencies should be capable of providing technical assistance to help county governments make that determination.*

RATIONALE:

- a. It is important to recognize that energy development necessitates an increase in population in existing communities and/or the creation of new communities which require additional housing and public infrastructure and that this need places a strain on local institutions.
- b. It is important in areas of energy development that industry, State Government and the Federal Government recognize the responsibility to assist local governments in the comprehensive planning, design, financing and construction of the necessary infrastructure.
- c. In order to attain the needed flexibility required by different counties to provide required community facilities, individual agreements can be made between the local communities and the industries seeking to develop energy resources.
- d. Legislation dictating who will do what, when and how, is unnecessary. All that is needed is a requirement that there exists, or there is a sufficient plan to provide, adequate housing and public infrastructure for the increased population caused by development.

EXPLORATION AND LEASING

- 15.** *State determined goals should be the controlling factor in establishing state exploration and leasing regulations.*

RATIONALE:

- a. Federal policy toward the development of federally-owned minerals in Utah should conform with Utah's policy in establishing state exploration and leasing regulations, including royalty rates. An interstate policy should be encouraged when it is in the best interest of the several states.

RECOMMENDATION:

- a. The Legislature should require a notice process followed by a public hearing, if requested, so that any proposed restrictions on the use of state-owned lands can be brought to the attention of the public and local governments.

- 16.** *The state should formulate a program to identify those state and federal lands having high energy use potential and promote their wise development.*

RATIONALE:

- a. State ownership of widely scattered sections results in state ownership of small acreages surrounded, in most instances, by federal lands. Development of these sections is hampered by their restricted access, small acreage and the slow developmental pace on adjacent federal lands.
- b. Of the state "in-lieu" lands, there are approximately 32,000 acres which could be selected for state ownership.
- c. The state has approximately 94,000 acres of state lands which are currently within withdrawn federal acreage, such as national parks and recreation areas. As a result, the state is denied economic benefits.

HYDROELECTRIC

- 39.** *Hydro as an energy source should be considered in conjunction with water development projects.*

RATIONALE:

- a. Utah has a number of water development projects under consideration and the feasibility of hydroelectric power generation at these sites should be examined.
- b. Pumped storage projects may be feasible for hydroelectric generation of power for peak periods of power usage.

WIND

- 38.** *Wind as an energy resource should be considered a supplemental energy source for local projects.*

RATIONALE:

- a. Harnessing of wind energy at isolated locations, especially in combination with other techniques, could be useful and economically desirable.

ADDITIONAL RECOMMENDATIONS:

- a. Building codes and zoning ordinances should be examined to determine whether disincentives exist that discourage innovative technologies.

- d. A portion of these "in-lieu" and exchange lands could be used to select mineral lands adjacent to existing state mineral lands to increase their economic viability.
- e. The state is losing potential revenue by not completing its "in-lieu" selections and land exchanges.
- f. It is recognized that the public interest might be better served in some areas by not pursuing "in-lieu" selections and land exchanges in these areas.

RECOMMENDATIONS:

- a. The state should take aggressive action, including court suit if necessary, to make its "in-lieu" land and other land exchanges with the Federal Government.
- b. The Legislature should request from the Division of State Lands a work program to be submitted with their budget request which will include the preparation of a plan for the selection of "in-lieu" lands, the exchange of state-owned lands and the management of state-owned lands. This plan, along with a program for local review and implementation, similar in scope to the State Water Plan, should include criteria to be used in the selection, acquisition and exchange of state-owned lands as well as in the identification of the wisest and best use of all state-owned lands.
- The plan, along with a program for implementation, should be submitted to the appropriate legislative committee by July 1, 1978, for action during the 1979 General Session.

- 17.** *The state should facilitate the development of its mineral lands in an environmentally acceptable manner.*

RATIONALE:

- a. Establishment of a sliding scale royalty rate would provide inducement for timely development if the royalties in the early years of the lease were low but increased over a period of time.

- b. Restrictions on the use of state lands may preclude development of mineral resources; therefore, any such restrictions should take into account energy development potential.

RECOMMENDATION:

- a. The Division of State Lands should submit proposals to the Legislature concerning the establishment of royalty rates and lease rental fees which will offer the greatest incentive for development while at the same time result in maximum income to the state.

RECOMMENDATIONS:

- a. The legal definition of geothermal resources which is currently defined as a water resource (as opposed to a mineral resource), should be reexamined by the Legislature.
- b. The Legislature should amend the Public Utility Code to mandate criteria incorporating in the geothermal rate structures a factor that considers the uncertain service life of geothermal resources.
- c. The Legislature should rationalize the regulatory and permit process with a view toward expediting geothermal development in Utah.

GEOTHERMAL

- 37.** *State and local governmental entities should regard geothermal energy as a potential present-day supplement to traditional energy sources for the heating of entire communities, for electrical generation and for steam for industrial purposes.*

RATIONALE:

- a. Utah has important geothermal sources for electric power generation. For example, in Roosevelt Hot Springs, a known geothermal resource area, present studies indicate reserves sufficient to support 400-800 megawatts of electric power generation capacity. (By comparison, total steam generating capacity in Utah at present is about 1,700 megawatts).
 - 1) Uncertainty as to the extent and potential longevity of undeveloped geothermal reservoirs is an important impediment to immediate development in Utah.
 - 2) A financial disincentive to development exists due to perceived high risks involved (e.g., an innovative approach; little known about specific reservoir characteristics and inadequate institutional regulatory measures).
 - 3) Environmental problems can be associated with the use of geothermal reservoirs. These include noise, odor, air pollution (release of SO₂, etc.) and brine disposal.
 - 4) The industry considers inappropriate governmental regulatory measures and procedures as significant barriers to development.
- b. Geothermal energy is used directly (i.e., without conversion to electricity) for space heating and cooling entire communities.
- c. Process industries requiring large quantities of steam could, other things being equal, locate near geothermal reservoirs for direct use of steam.

ENVIRONMENTAL PROTECTION

- 18.** *The state should establish environmental standards which uphold the public interest in preserving the natural and scenic values of Utah and which protect the health, safety and general welfare of its citizens.*

RATIONALE:

- a. It is the responsibility of the state to assure the health, safety and general welfare of its citizens.
- b. The state must enforce Environmental Protection Agency standards which have the force and effect of law. The state should oppose any proposed standards which are not consistent with state needs.

RECOMMENDATIONS:

- a. The Legislature should provide adequate funding for the administration of environmental programs by the Division of Health and the Department of Natural Resources.
 - b. The Legislature should consider awarding tax and fiscal incentives to polluting sources when such sources reduce the pollution below standards imposed by law. The Tax Commission should be requested to present to the Legislature alternative incentives in the areas of accelerated depreciation of pollution control facilities and also consider the possibility of allowing a tax credit against the corporation franchise tax for pollution control devices based on an annual percentage of return on investment over the depreciated life of the investment. In the event the installed equipment reduces pollution in excess of statutory requirements an additional graduated credit could be given for each increment of improvements.
- 19.** *The state in its development of resources should not endanger the health, safety and general welfare of its citizens or the health, safety and general welfare of*

citizens in neighboring states through the pollution of air and watersheds.

RATIONALE:

- a. Because air or watersheds cross state lines, development in Utah may affect the air and water quality in other states.
- b. Utah's economic and environmental needs and conditions are similar to and interact with its neighboring states. Since Utah and some of its neighboring states have less political influence than the industrial northeast or other more populous states, there is a need for cooperative efforts to achieve regional coordination on environmental problems.

RECOMMENDATION:

- a. Utah should work with its neighboring states whose environment and needs are more similar to it than to the nation as a whole.

20. *Any industrial entity or contractor who in the process of its activities adversely affects the environment should be required by law to restore the environment to a reasonably equivalent condition to that existing prior to the activities, and should be required to furnish a bond or other method of security to guarantee such action upon completion of its projects.*

RATIONALE:

- a. Growth of any type or magnitude results in some environmental degradation even with application of all known, practical and economically achievable control procedures.
- b. In the event that industry agrees to achieve environmental standards more restrictive than those imposed by the state or Federal Government, the state presently has no mechanism by which to enforce that commitment

such building design and solar systems in new state construction.

- b. The state should support the Solar Energy Research Institute or satellites in the State of Utah.

SOLAR ENERGY

- 36.** *Solar energy should not be viewed as an exotic future alternative but as a potential present-day supplement to traditional energy sources which, when used in optimal combination, can make a contribution to the satisfaction of energy demands. The state should support development and use of this resource.*

RATIONALE:

- a. In Utah, the capability to produce energy from solar exists and can contribute to the satisfaction of a portion of in-state energy needs. Acceptance of supplemental technologies is, in part, a matter of public attitude.
- b. The most promising area for application of solar technology in the near future is in water heating and in space heating and cooling. About one-fourth of the energy consumed in the United States today (excluding the transportation sector) satisfies such demands. Estimates vary as to how much of the space and water heating demands could be met by solar energy, but much of Utah is within areas highly attractive for solar energy development.
- c. While economically marginal, adequate technology already exists to supplement other energy sources for decentralized energy production (e.g., household-size units).
- d. As solar energy may be a major source of energy in the future, Utah's industry should be encouraged to keep pace with this development.

RECOMMENDATION:

- a. The Building Board should be the lead agency in considering solar energy by providing information and evaluating solar systems and architectural design for the public and by considering the feasibility of using

- c. Regardless of what the rules and regulations are, industry can be encouraged to perform at a level above the minimum required by law.

- 21.** *The state should assume responsibility to administer federal environmental programs whenever permitted by law, and should seek necessary federal legislation to delegate this responsibility and provide necessary funds for administration.*

RATIONALE:

- a. Many requirements defining acceptable levels of degradation have already been established and are in the process of implementation as a joint federal-state responsibility.
- b. State enforcement of federal requirements presently includes control of emissions to the atmosphere and to waters of the state; control of solid waste disposal practices and control of culinary water quality.
- c. Related state activities necessary to assure a safe industrial environment and a healthy population include control of hazards to workers in construction and industry and control of transient facilities including resorts and recreational areas.
- d. Federal enforcement is typically oriented towards negative incentives such as fines and penalties as opposed to state and local attitudes of cooperation with polluting sources in attaining environmental standards. Federal activities should cover only problems of an interstate nature which states cannot handle. The state should resist creation of federal requirements which are inappropriate under local conditions.

RECOMMENDATION:

- a. The state should closely monitor proposed federal constraints on energy development so that a state policy viewpoint can be expressed to federal officials.

- 22.** *The state should expand its assistance to local governments in meeting culinary water and wastewater system requirements, both of which are strongly impacted by energy and related industrial development.*

RATIONALE:

- a. Federal regulations impose a burden on local governments to meet culinary water and wastewater system requirements.
- b. Federal funding at a 75 percent level for construction of sewage treatment plants appears likely to continue and needs to be encouraged. Increased appropriations now under consideration by Congress should be supported to accelerate completion of needed projects and to permit extension of funding to sewage collection systems.
- c. The present state no-interest loan program for culinary water system construction, administered by the Division of Water Resources, is insufficient to cope with the load being imposed by growth. There is presently no federal funding for culinary construction comparable to the fund available for sewer construction.

RECOMMENDATIONS:

- a. The Legislature should increase funding of the revolving no-interest loan program for culinary water system construction.
- b. The Legislature should establish a non-interest fund for construction of sewage collection systems.

- 23.** *Incentives should be developed to encourage the siting of industrial development in areas which do not conflict with those having special historical, scientific, archeological, natural or scenic significance.*

RATIONALE:

- a. Utah possesses a wide variety of natural resources, including scenic and mineral resources. Utah policy is to encourage the development of all its resources

ALTERNATIVE ENERGY TECHNOLOGIES

RENEWABLE RESOURCES

- 35.** *Innovative energy technologies should be encouraged by the state.*

RATIONALE:

- a. A major problem with changes from traditional energy sources is a lack of public acceptance or willingness to invest in innovative methods of energy production.
- b. Adoption and use of new technologies are sometimes hindered because of inadequate and/or inflexible building codes and zoning ordinances.
- c. The state spends millions of dollars in new construction and should be a leader in new energy technologies.

RECOMMENDATION:

- a. The state should encourage the development of municipal solid waste and waste oil recovery systems for utilization of these potential resources for both energy and material production.

SYNTHETIC FUELS

- 34.** *The state should support and facilitate oil shale development, tar sand development and coal gasification and liquefaction on a demonstration basis.*

RATIONALE:

- a. Oil from shale, gasification and liquefaction of coal and oil from tar sands all represent major energy resources within the state. The state has most of the country's bituminous tar sand resources and some of the best oil shale lands in the country. The state also has coal resources that can be used for gasification and liquefaction.
- b. The development of synthetic fuels is not economically attractive under present market conditions.
- c. The environmental consequences of synthetic fuel development vary from fuel to fuel and are not fully understood. Any large scale development will have to be examined for its environmental consequences (including water consumption, waste disposal, land reclamation and air pollution) and the socioeconomic consequences. For these reasons, demonstration projects are useful in substantiating the feasibility of the technology and indicating the associated consequences.

RECOMMENDATIONS:

- a. The state should continue to encourage research in extraction and processing techniques of synthetic fuels.
- b. The State Engineer and the Division of Water Resources should continue to examine the availability of water for synthetic fuel production.

- b. Energy development in parts of Utah will be limited by existing federal laws and regulations.
- c. If the state does not do so, the Federal Government will classify areas in the state as appropriate or inappropriate for industrial development on the basis of air quality standards.
- d. Since 66 percent of the state's land area is owned and controlled by the Federal Government, the state must coordinate its analysis with federal land managers and can seek federal acceptance of the state's classifications.
- e. Industry can operate best when ground rules are set in advance and when uncertainty can be avoided.

RECOMMENDATION:

- a. In the event that industry agrees to install equipment designed to meet environmental standards more restrictive than those imposed by the Federal Government, the state should enforce that commitment to install that equipment.

EXPORTATION

- 24.** *The state policy regarding the exportation of energy should be sufficiently flexible to allow both exportation of energy raw materials and exportation of these raw materials converted to other energy forms with preference given that energy form which brings the greatest net benefit to the welfare of the citizens of Utah.*

RATIONALE:

- a. The orderly development and exportation of energy in its various forms is generally deemed to be in the best interest of the State of Utah provided that adequate environmental and social safeguards are assured and that economic benefits to the state are optimized.
- b. Energy development has a positive effect on the socio-economic conditions in a community. It has short-term negative effects on the quality of life caused by the changed pace of life, the cultural and political changes superimposed on a community, crowding, stresses on sewage systems, schools, law enforcement facilities and mental health and welfare services.
- c. Net benefit means that the total direct and indirect costs and benefits (including quality of life, quality of environment and other socioeconomic factors) of energy development and forms of exportation have been considered before the decision to proceed is made and that the benefits are considered to outweigh the costs.
- d. A selective tax on exported energy would probably violate the Constitution of the United States since it would, in effect, be taxing interstate commerce.

RECOMMENDATIONS:

- a. Provide a mechanism whereby eminent domain could be granted slurry pipelines similar to other eminent domain rights granted to other private enterprise.
- b. State and local governments should take a leadership role in designating utility transportation corridors as a means of facilitating energy development.

higher extraction efficiency of Utah's oil and gas resources.

- c. The state should encourage Congress to amend the definition of "stripper well" so that it is based on local economic conditions rather than be set at a fixed production rate.

OIL AND NATURAL GAS

- 33.** *The state should support the exploration for and development of Utah's oil and gas resources for intra-state markets and for export. The state should encourage expanded application of secondary and tertiary reserve recovery of these resources.*

RATIONALE:

- a. Advanced recovery techniques are more expensive than initial resource recovery and generally have to be applied throughout development of the field if they are to be effective. Without secondary and tertiary recovery techniques, oil recovery varies from 5 percent to 50 percent recovery of the reserves.
- b. The price of oil and gas drastically affects exploration efforts and secondary and tertiary recovery programs. Domestic oil is priced lower than imported oil. The price of natural gas is even lower. Consequently, there is a disincentive to develop Utah's resources.
- c. The highest value use of natural gas is for residential and commercial markets and not for electrical generation or for large energy uses where coal can be substituted.
- d. Energy companies, particularly in the Uintah Basin where production is from deep formations and has high paraffin content, agree that economic limits of production under existing prices seem to be 30 barrels per day. By definition, production from "stripper wells" of less than 10 barrels per day is freed from price control. If definition of "stripper wells" would reflect this, Utah could keep over 500 wells per day pumping with a net benefit of 15,000 barrels of oil per day.

RECOMMENDATIONS:

- a. The state should treat natural gas and oil as a limited resource and encourage their wise use.
- b. The state should encourage research applicable to

ENERGY PRICING

- 25.** *Energy prices should be determined by total costs and marketplace conditions.*

RATIONALE:

- a. Artificial price controls by the Federal Government result in artificial demand for one energy resource over another (e.g., gas over coal).
- b. Artificially low energy prices have acted as a disincentive for the exploration of existing energy resources (e.g., oil and gas) and the development of new energy resources (e.g., coal gasification). Exploration wells for oil and gas have been reduced nationally from 16,207 in 1956 to 7,466 in 1973.
- c. Artificially low energy prices have resulted in a waste of energy resources.

- 26.** *The state effort to minimize the social problems resulting from energy costs, as in the case of food costs, is the responsibility of the Department of Social Services and not of energy pricing policies.*

RATIONALE:

- a. Regardless of economic status, each individual requires a certain amount of energy to maintain a basic standard of living and the state should recognize its responsibility to assure this.
- b. Future energy costs will be higher because of increased production costs under more difficult conditions. Increasing numbers of man hours will be required to produce our energy resources which means the customer using the energy must work more man hours for each unit of energy purchased in the future than he has in the past. These trends simply mean that a greater share of personal income must be devoted to the purchase of energy.

- c. Special pricing of energy is not a satisfactory method of alleviating financial problems of low income families.
- d. The Department of Social Services is qualified to identify the needs of the economically disadvantaged and to assist in the payment for their energy.

- d. The state should encourage research applicable to improved combustion technology and improve mining methods for Utah's coal.

COAL

- 32.** *The development of Utah coal should have the highest priority as a means of meeting national energy demands and providing state economic benefits.*

RATIONALE:

- a. Utah has high quality, high BTU, low sulfur, low ash coal that is an exceptionally valuable energy resource.
- b. Utah's coal is only marginally economic for export out of the state, due to its high mining costs and high transportation costs when compared to most other western coal.
- c. Although Utah has some coal that can be surface mined, most of its coal resources must be mined by underground methods. The capital costs of developing a new underground coal mine and the cost of operating an underground coal mine are very high.
- d. The development of Utah coal and the attraction of secondary industry to the state to use the coal will encourage a diversified and stable economic base for the state's economy.

ADDITIONAL RECOMMENDATIONS:

- a. The state should devise incentives for maximum extraction of coal resources on given tracts of land in order to encourage maximum recovery and discourage the waste of coal resources.
- b. The Division of Industrial Development should seek to attract developments which are long-term in nature and dependent on coal as their energy source in order to stabilize the state's economic base.
- c. State and federal mine safety personnel should work more closely with industry and labor to ensure their regulations actually result in safer conditions, increased productivity and increased rather than decreased coal mine production and miner productivity.

ENERGY CONSERVATION

- 27.** *Since waste in any form results in wasted energy, the elimination of waste of all kinds, including energy, should be a state goal.*

- a. The production of material goods which are consumed directly or indirectly by the public utilizes more than 40 percent of the total energy consumed in the United States. Transportation of these goods consumes an additional energy increment. Thus, the conservation of all forms of material goods, including food, will result in the conservation of energy.

- 28.** *Conservation of energy for economic and availability reasons is of paramount importance. In spite of our best efforts at conservation, it appears that there will still be a substantial increase in energy demand in the foreseeable future.*

RATIONALE:

- a. The energy forms currently being most used in the United States are in limited supply. Conservation prolongs future availability of these energy forms.
- b. In our oil-intensive economy each barrel of oil or oil equivalent conserved offsets the need for imported oil thus minimizing the balance of payment problems.
- c. If all residential and commercial buildings in Utah were upgraded in ceiling insulation to current Federal Housing Administration standards, enough energy would be conserved to meet the growth in energy demand of the above sectors for approximately two years. The industrial sector in Utah is now operating at a reasonable level of energy efficiency, therefore, the growth in demand for nontransportation uses of energy in Utah will continue at levels near past history growth.
- d. While increased prices may reduce the use of transportation energy by private individuals, the demand

for energy in the industrial and commercial portions of the transportation sector will be a result of growth in the economy almost irrespective of price changes.

- e. The matching of proper energy resources to meet specific energy needs is one of the most important conservation measures.

RECOMMENDATION:

- a. The Legislature should consider the specific recommendations of the Energy Conservation Committee, appointed by the Governor, and adopt a state energy conservation plan.

ALTERNATIVE ENERGY TECHNOLOGIES

FOSSIL FUELS

- 31.** *The state should emphasize the development of fossil fuels in an environmentally sound manner to supply its own needs and to supplement those of the nation.*

RATIONALE:

- a. Utah has numerous fossil energy resources, most of which are underutilized.
- b. There is a growing problem concerning the nation's export of payments due to oil imports from foreign countries. Fossil fuels produced in Utah can help the nation become less dependent on foreign sources.
- c. Coal, oil, nuclear and natural gas represent the only viable energy resources for the short- and intermediate-term supply for the nation's energy needs and economy.
- d. The economic well-being of Utah citizens is interdependent with that of the nation. The state has a responsibility to export energy (and goods and services embodying prior energy consumption) to other areas of the country.
- e. As a state, Utah produces approximately the quantity of metallurgical coal it consumes, exports 50 percent of the steam coal it produces and imports over 75 percent of the gas it consumes.

RECOMMENDATION:

- a. The state should set fossil fuel development consistent with environmental and social objectives as its highest energy development priority.

should continue a research fund from a portion of the oil and gas tax revenues.

- d. The state and Legislature should support participation in programs of regional coordination of research to enhance research efficiency and transfer of information between federal agencies and neighboring states in order to be consistent with Utah's goals and objectives.

RESEARCH

- 29.** *The state should further facilitate program development, communication, coordination and use of science and technology by and for all governmental units in the State of Utah through the Council on Science and Technology, created by Section 63-45-3, Utah Code Annotated 1953. The Council on Science and Technology performs a legitimate function of State Government and should become a permanent part thereof.*

RATIONALE:

- a. The state, through the Council on Science and Technology, has the duty to coordinate research efforts and facilitate the use of research information in solving state and local problems.
- b. The State Planning Coordinator, as a member of the Council on Science and Technology, should provide the communication linkage between local governments and state agencies so that local needs of a scientific and technical nature are communicated to the appropriate research group through the council.

RECOMMENDATIONS:

- a. The Legislature should require submission of a work program from the Council on Science and Technology with their budget request which shall reflect the coordination and communication role established by statute.
- b. The Legislature should provide adequate funding for the Council on Science and Technology to perform its statutory duties.
- c. The Legislature should make a technical amendment to paragraph three of Section 63-45-6, Utah Code Annotated 1953, to make the council advisor administratively responsible to the State Planning Coordinator in order to be consistent with other provisions of the

act which place the council under the office of the State Planning Coordinator.

- d. The Legislature should eliminate Section 63-45-8, Utah Code Annotated 1953, which now specifies an expiration date of July 1, 1977, for the Council on Science and Technology.

ENERGY CONSORTIUM

- 30.** *The state approves the concept of the University of Utah, Brigham Young University and Utah State University as a major energy research vehicle.*

RATIONALE:

- a. The general research capability of the universities and research institutions is an asset to the state in responding to issues in the areas of natural resources and energy research.
- b. Experience has demonstrated that high quality research complexes play a very positive role in developing regional economies (the Route 1 complex in Massachusetts and the Stanford University complex are only two of the many examples of this principle). In combination, Utah's universities and research institutions hold the potential for achieving national competitive stature in energy and natural resource research capability.
- c. The state now has a research fund established on a one-time basis in 1976, created from a portion of the oil and gas tax revenues for use by state research institutions for energy research. Experience has shown that the use of this money has helped universities attract non-state funding for research.

RECOMMENDATIONS:

- a. The state and Legislature should provide the general support and facilities to insure that the state's research institutions will be capable of effectively providing research and information in support of the state's goals related to technological, educational, social, economic and industrial development.
- b. The Legislature should consider a special endowment fund financed by lease bonus monies.
- c. Depending on available revenues, the Legislature