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LEGIS/50
Center for Legislative Improvement

NATIONAL LEGISLATIVE TOWN MEETING ON ENERGY

Brown Palace Hotel

Denver, Colorado

December 17-19, 1979

LEGIS/50 STAFF

JAMES E. ARNOLD is executive director of LEGIS/50. See Panelist and Speaker Biographies.

R. MICHAEL BIRD joined LEGIS/50 in March 1978. He currently serves as the project manager for the Workers' Compensation seminars project funded by the U.S. Department of Labor. Bird also directs a legislative improvement project with the Tennessee Legislature and recently coordinated a state legislative orientation session held for a visiting group of Nigerian civil administrators. He also directed project development activities for LEGIS/50 in 1978. In addition to his work experience at LEGIS/50, he has held a variety of positions with several state legislatures. Bird was the legislative assistant to the Illinois Senate President and also served in that legislature as a consultant to the Senate Education Committee. From 1973 through 1975, he served as a staff associate to the Colorado General Assembly and Arizona Legislature in a legislative improvement project sponsored by the Ford Foundation. Bird has also worked with U.S. Virgin Islands Legislature as the primary staff resource for establishing that territory's recent Constitutional Convention. Bird is a former Chicago high school teacher and has managed several political campaigns in Illinois and Colorado. He resides in Denver, Colorado.

KATHLEEN L. BLOOM takes care of day-to-day details in seminar and conference planning on a part-time basis. Preliminary work on site selections, changes and updates of hotel and travel arrangements, and assisting with registration processing are a few of those details. Kathy is currently a senior at Metropolitan State College, seeking a B.A. degree in Meeting Administration. Prior to that, she was an English major at the University of Minnesota. Kathy is a member of Meeting Planners International.

PAM CRAVEN is secretary to the executive director. In this capacity she performs logistical and administrative functions and coordinates schedules and calendars. She is also secretary to LEGIS/50's Board of Trustees. In that capacity she maintains the records and minutes of the Board, and supervises the preparation of documents for Board meetings. Craven joined LEGIS/50 in February, 1978, as the secretary to the director of operations. In that position she provided administrative support to all of the major operating projects of the organization. Before joining LEGIS/50, Craven worked for the Mayor and City Council of Austin, Texas as an administrative secretary for five years. And prior to that, she worked as the secretary to the general manager of KTBC in Austin, a television and radio enterprise owned by the Lyndon B. Johnson family. Craven attended the University of Texas and studied office administration and general business.

BETTY CRIST'S duties include research, writing and attending to a broad range of administrative duties for executive director James Arnold. Crist has a considerable background in politics and state government, having served five years as assistant to the Colorado senate minority leader. In that capacity, as well as in political campaigns and civic undertaking, Crist has written speeches and press releases and has administered staff offices. A former elementary school teacher, Crist received her undergraduate degree in education from Iowa State Teachers College (now the University of Northern Iowa). She has an A.D. in communications from the Community College of Denver.

LYN DAVIS, is MCSP/JJ assistant project manager. She most recently worked 1 1/2 years at the Center for Children and Youth, Inc., a statewide advocacy organization located in Tallahassee, Florida. She served as the center's

Children in Adult Jails grant. Davis also spent three years as staff to the Florida legislature, working as a legislative writer in the Senate Ways and Means Committee and as a legislative analyst on the House of Representatives Governmental Operations Committee. Davis has a bachelor of arts degree in history from Florida Atlantic University, did graduate work in American history at the State University of New York at Albany and earned her doctorate in adult education from Florida State University.

LILLIAN GLASGOW, is the office manager for LEGIS/50. Glasgow has been with LEGIS/50 more than four years and was LEGIS/50's librarian prior to accepting her present position.

LESLIE HAWLEY recently joined LEGIS/50 as a project assistant assigned specifically to the National Town Meeting Project. Prior to joining LEGIS/50, she spent eight years in the printing business including management of the Hawley Printing Service in Manhattan, Kansas. She attended Kansas State University and majored in graphic arts.

ELIZABETH KINGMAN is an energy communications specialist who recently joined LEGIS/50 as a project assistant for the National Town Meeting. A graduate of the University of Denver with a B.A. in communications, she created and developed the Solar Energy Exhibition Program, a traveling educational and information program on energy conservation and solar technologies. Under the sponsorship of the University of Colorado, she raised $150,000 to carry through the program. Since 1976, it has been featured in Colorado, California, Hong Kong, and Palermo, Italy, and is currently on loan to the Tennessee Valley Authority.

PAUL S. MAXWELL is responsible for the design and execution of all LEGIS/50 fundraising programs and communications. Maxwell has more than a decade of professional journalistic publication and total management experience including creating, packaging, writing, editing, marketing and managing industrial and consumer publications. He has created several successful industrial trade publications, reformulated two successful consumer magazines and created a successful consumer business newspaper. In addition, Maxwell co-founded two publishing companies. Before joining LEGIS/50, Maxwell was executive vice president of General Communications, Inc., publisher of Denver Business World, a weekly business magazine which he helped create, design, edit and market in the capacity of managing editor. Prior to then, he was a vice president of the Communications Publishing, Inc. As a partner in DiSante & Maxwell, he has provided advertising and editorial services to major regional and national business accounts. Currently, Maxwell has a daily business commentary on KLDR-AM radio and a weekly business television segment on KWGN-TV.

DONNA McPHEE, senior word processor, has been with LEGIS/50 eight months and came to LEGIS/50 from Rocky Mountain Word Processing School.

PHIL MURRAY is responsible for design and editing of LEGIS/50 publications as well as handling press relations. Prior to joining LEGIS/50, Murray worked for a weekly Colorado political newspaper, The Statesman. Where he served as a photographer and a staff writer. He edited monthly supplements submitted to The Statesman by local county political organizations. Murray has also served as director of public relations for The Open Clinic, a Denver-based crisis-intervention center and has been active in a number of local political campaigns. Murray has a bachelor of arts degree from the University of Denver.

PATRICIA ANN PATCHEN was appointed to the position of administrative assistant for the Model Committee Staff Project in Juvenile Justice in August 1979. Her responsibilities include coordination of the files and reports required for effective management of the project. Prior to assuming this position, Patchen was the LEGIS/50 receptionist. Before joining LEGIS/50, Patchen operated her own small business and had been in sales.

BEKI PINEDA secretary to the director of operations, joined the LEGIS/50 staff in October 1979. She provides clerical support for all operations staff and coordinates travel arrangements. Prior to joining LEGIS/50, she served as administrative secretary to the Denver Election Commission, City and County of Denver, for four years. Beki received her B.A. degree in education from Illinois State University.

ANN E. QUINTANA is the secretary to the development and communications department .She was appointed to this position in September, 1979. Quintana is responsible for organizing and maintaining the development and fundraising records of LEGIS/50. Quintana also prepares regular reports on fundraising results for senior management and the Board of Trustees. She performs a variety of other administrative and support services for the department. A native of Colorado, Quintana joined LEGIS/50's word processing unit in February, 1977.

STEVEN D. SCHROCK has been the project manager for the Model Committee Staff Project in Juvenile Justice since December, 1978. Prior to that he served as the project's assistant manager. In this capacity, Schrock has overall responsibility for training and managing the field and headquarters Juvenile Justice Project staff, budgeting, and administering the grant. Schrock authored the Model Committee Staff Project in Juvenile Justice Technical Assistance Project, a pending LEGIS/50 program which will disseminate information generated by the MCSP/JJ project to other state legislatures. Before joining LEGIS/50, Schrock was a technical assistance specialist at the Center for Action Research in Boulder, Colorado, and worked on temporary assignment in the Washington, D.C. - based office of Juvenile Justice and Delinquency Prevention of the Law Enforcement Assistance Administration. He earned his masters degree in sociology from the University of Colorado at Boulder.

SUZANNE SHERWOOD attends to all the details involved in planning and executing meetings, seminars and conferences. Sherwood investigates potential sites, makes travel arrangements, and coordinates programs. Before joining LEGIS/50, Sherwood was regional sales manager for Four Seasons Hotels. She also has worked in hotel convention sales at the Tucson Marriott. Sherwood is a member of Meetings Planners International.

T. SCOTT SMITH is manager of LEGIS/50's Development and Communications program. Smith has been associated with public information for 12 years. He joined LEGIS/50 in January 1979, as the assistant to LEGIS/50 President Larry Margolis. In May 1979, he assumed his present position. Smith was previously with LEGIS/50's Operations Department from 1968 to 1973. He was director of the Ohio Citizens Committee and was with the Program for Legislative Improvement, both early LEGIS/50 field projects. In the interim, he was director of operations and later executive director of the Bicentennial Council of the 13 Original States, a national citizen education program. In that capacity he created the Council's fundraising and public education program. He also served as the regional governmental affairs manager for the

Motor Vehicle Manufacturers Association. He was the M.V.M.A.'s liaison for state and local programs with the U.S. Chamber of Commerce and other national organizations based in Washington, D.C. Smith has a master of arts degree in political science from the Eagleton Institute of Politics at Rutgers University.

CARL D. TUBBESING is responsible for all of the organization's field projects and contract studies. Before joining LEGIS/50 in February 1979, Tubbesing served as assistant director of state services for the National Conference of State Legislatures. His responsibilities included coordination of research activities of the Denver staff, responding to information requests from state legislatures concerning legislative structural and procedural issues, preparing grant proposals, staffing NCSL committees on Ethics and Elections, Legislative Information Needs and Legislative Management, and editing the State Legislative Report newsletter. Tubbesing earned his baccalaureate and doctorate degrees in political science at Washington University and served on the political science faculty of Southern Illinois University. He has published many articles on political science subjects in professional publications.

HELGA WATT joined LEGIS/50 in September 1979. She is organizing the library collection and will provide library and information services both to LEGIS/50 and in response to information requests from LEGIS/50's public and private sector constituency. Watt received an M.A. in 1979 from the University of Denver Graduate School of Librarianship and Information Management, and a Ph.D. in 1978 in modern German literature from the University of Massachusetts at Amherst.

DEBORAH WILSON works in LEGIS/50's word processing department. Prior to joining LEGIS/50, she worked in restaurant management and taught retarded children at Weiland School.

JOSEPH G. ZALKIND has been a LEGIS/50 project manager and program development officer since October, 1978. He is currently managing the National Town Meeting on Energy project financed with a grant from the U.S. Department of Energy. Most recently, Zalkind was project manager for the Workers' Compensation conferences series. As a program development officer, he has written proposals which LEGIS/50 has submitted to various public and private funding sources and has developed concept papers that serve as the basis for follow-up activities to current projects. Prior to joining LEGIS/50, Zalkind was a consultant with Cameron Engineers, a Denver-based firm specializing in energy matters. He has also done independent consulting work, and was executive director of Colorado Common Cause. His published work includes Guide to Corporations: A Social Perspective, a 400 page study of business and government from a public interest viewpoint (Swallow Press, 1974); Development of Environmental Guidelines for Fossil Energy Site Selection, completed for the U.S. Department of Energy; and numerous other studies, reports and articles.

LEGIS/50 The Center for Legislative Improvement

[illegible] West Colfax
Denver, Colorado 80204
(303) 825-1776

MEMORANDUM

TO: Conference Registrants

FROM: LEGIS/50 Staff

SUBJECT: National Town Meeting

DATE: Friday, December 7, 1979

LEGIS/50 is delighted that you will be attending the National Town Meeting on Energy at the Brown Palace Hotel in Denver, Colorado, on December 17-19, 1979. Final preparations for the meeting have been made and we look forward to an informative and engaging three days.

Enclosed is the agenda for the conference. Please note the following:

--SIGNUP for the workshops will occur when you register for the conference on Monday. Workshops will be conducted much like legislative committee hearings and will last all day on Tuesday. Panelists will, in effect, be "lobbyists" or "witnesses" called in to testify before the "committee." It is hoped that each workshop will produce written recommendations to be submitted for discussion by the entire assembly on the last day of the conference. You will be able to signup for one workshop only. It is suggested that delegates from each state spread themselves out over as many workshops as possible, with no workshop having two legislators from the same state.

--Hotel checkout time on Wednesday is 2:00 p.m. which will allow plenty of time to vacate your rooms following the close of the meeting at 12:30 p.m. Legislators and program participants need only pay their personal incidental charges and those of their spouses upon checkout. The lodging portion will be billed to LEGIS/50. Additionally, all meals are being offered as a part of the conference except lunch on Monday, December 17, and lunch Wednesday, December 19. Government per diem limits these expenses to $4.00 per lunch and, therefore, will be the maximum amount covered by LEGIS/50. Again, this only applies to legislators and program participants.

--Resource papers, biographies of conference participants, and expense forms will be enclosed in personalized packets to be picked up when you arrive for registration.

--The Brown Palace Hotel is centrally located in downtown Denver, approximately 20 minutes from Denver's Stapleton Airport. Limousines and cab service from the airport to the hotel are available on a regular basis and at reasonable rates ($5-6 for cabs and $2-3 for the limo). All major car rentals are also available at the airport and through the Brown Palace Hotel.

--If you have any questions regarding conference logistics or program, please call Susie Sherwood or Joe Zalkind at LEGIS/50 (303/825-1776).

[illegible] Arnold
[illegible] Director

[illegible] Board Chair
[illegible]

Larry Margolis
President

LEGIS 50 The Center for Legislative Improvement

phone contact: Davey Klearman

333 West Colfax
Denver [illegible] 80204
(303) 625-1776

October 15, 1979

The Honorable Terry Gardiner
Speaker of the House of Representatives
State Capitol Building
Juneau, Alaska 99811

Dear Speaker Gardiner:

As a legislative leader, you are particularly aware of the challenge which the nation's energy problems present to the fifty state legislatures. Confronting this challenge requires creative and innovative mechanisms--mechanisms which involve not only the national government but the state governments, and especially the state legislatures, as well. LEGIS/50 - The Center for Legislative Improvement has designed such a mechanism and hopes that you will be a part of it.

On December 17-19, 1979, LEGIS/50 will convene a National Legislative Town Meeting on Energy. To be held at the Brown Palace Hotel in Denver, Colorado, the Energy Town Meeting will be a convocation of key state legislative policymakers to discuss energy needs, explore alternative policy options, and plan integrated state, regional and national energy programs. I am very pleased to invite you to attend this unique and important meeting.

For the first time in over a century, representatives of all the states will meet together in response to a specific national problem. Legislators in attendance will include energy experts and, because the energy issue has such sweeping ramifications, key legislative leaders with broad policy concerns.

The National Town Meeting is made possible by a contract with the U.S. Department of Energy, under the auspices of Richard J. Stone, Office of Intergovernmental Affairs. The conference will afford the 200 legislators in attendance an opportunity to debate a wide range of energy issues in an intense and stimulating atmosphere. Energy experts from all sectors of society will be available as resources . Key congressional and administration officials will participate. The proceedings will be disseminated throughout the country by cable television systems.

Further details about the Town Meeting are included in the enclosed brochure. Attendance will be limited to four legislators from each state. LEGIS/50 will be able to cover all of your expenses for the meeting -- including coach-class airfare or mileage, (whichever is more economical), meals, lodging for two nights (December 17 and 18), and other travel expenses. Costs for spouses and

625-1776

Margaret Branson

other guests cannot be covered. We have arranged with our travel agent, Denver Travel Agency, to issue pre-paid airline tickets. Simply call its commercial sales department (303/893-2024) to make your flight arrangements. Because of the Christmas travel rush, you should make your airline reservations as soon as possible. The program will begin Monday, December 17 and will conclude by early afternoon, Wednesday, December 19.

1 P.M.

To confirm your attendance at the Town Meeting, please return the enclosed reservation card to us in the postage-paid, self-addressed envelope. We will use the card to make your reservation at the Brown Palace Hotel. Please return it to us by October 29. Also, please fill out the biographical form and enclose it in the same envelope. If you have any questions about travel or hotel arrangements, please contact Suzanne Sherwood of our staff at 303/825-1776.

I hope very much that you will be able to attend this important and exciting meeting. However, if you are unable to attend, I would appreciate your suggestion of another legislative leader from your state who would be interested in participating. You may do so by substituting his or her name for yours on the enclosed card or by calling Carl Tubbesing, Director of Operations, Joe Zalkind, Project Manager, or me.

I look forward to hearing from you soon.

Sincerely,

James E. Arnold
Executive Director

JEA:dm
Enclosures

no dem. Mon.

NW

reserv.

Butte-Denver
$110
3.11

LEGIS/50 The Center for Legislative Improvement

FACT SHEET

WHO:
- *200 top energy legislators—four from each of the 50 states.
- *Leading Congressional and Senior Federal Executives from the White House and the Department of Energy.
- *Nationally recognized energy policy specialists, economists and energy industry leaders.
- *News media and public interest groups.

WHAT:
- *An unprecedented modern national assembly of legislators representing the 50 states meeting to explore ways our federal system can resolve the energy crisis.

WHERE:
- *The Brown Palace Hotel 17th and Tremont Place Denver, Colorado 80202

WHEN:
- *Beginning Monday, December 17th and ending Wednesday, December 19th, 1979.

WHY:
- *The national government, the 50 states and the private sector each have important roles in establishing and implementing a complex domestic energy policy. All legitimate regional, state and local interests must be recognized and become part of the overall national strategy for effective energy policy.

HOW:
- * The Town Meeting is a beginning point for creating a new partnership on energy policy among the national government, the 50 state governments and the private sector.

LEGIS/50— THE SPONSOR

LEGIS/50-The Center for Legislative Improvement is a national, non-partisan, not-for-profit organization working to improve the policymaking capacity of the 50 state legislatures. Founded in 1964, LEGIS/50 operates research, technical assistance and education projects which demonstrate to legislatures and the private sector more effective ways to treat public policy issues.

Beginning in 1978, LEGIS/50 has conducted seminars for legislators in the Rocky Mountain region on energy policy formulation. A recent LEGIS/50 publication, the *Energy Source Book*, brings together the most current data on energy resources, energy demand and actions being taken to resolve energy problems. The *Source Book*, which provides basic information necessary to understand the nature and scope of energy policy issues, is an important tool for legislators and legislative staff.

For more information about the Town Meeting and other LEGIS/50 projects to improve state legislative policymaking contact:

James Arnold
Executive Director
—or—
Carl Tubbesing
Director of Operations
LEGIS/50—The Center for Legislative Improvement
333 West Colfax Avenue
Denver, Colorado 80204
303/825-1776



THE NATIONAL TOWN MEETING

Convening Legislative Leaders From All 50 States In A National "Town Meeting" On Energy Policy

Brown Palace Hotel Denver, Colorado

December 17-19, 1979

THE ENERGY CRISIS

It is real. Unlike long gasoline lines, the energy crisis won't just go away. If the Sixties were a time of adjusting to the complexities of world politics and the Seventies were a time of sorting out America's priorities, it is clear that the Eighties will be a time of coming to grips with the facts of diminishing natural resources and the time-lag of high technology developments.

It is equally certain that no solution can come from on high without complications. America is too big, too complex and just too diverse to have one, uncomplicated, mandated energy policy solution.

Washington can't just tell everyone what to do.

That's a good thing.

Wyoming isn't Ohio. Texas isn't New York. California isn't Massachusetts. Alaska isn't Georgia.

America has 50 separate, autonomous, sovereign state governments. They, like the Federal Government, have a role to play in the energy crisis.

There are producing states and there are consuming states.

Their needs and wants sometimes differ.

In a climate of growing realization that Washington does not necessarily have all the answers, LEGIS/50-The Center for Legislative Improvement conceived of the idea of bringing together in one place for an intensive, three-day examination of the energy crisis and its ramifications the top energy legislators of the 50 states. The 50 state legislatures make the laws, appropriate the funds and oversee the implementation of the laws which will make or break America's response to the energy crisis.

Meeting this energy crisis requires the national government, the fifty state governments and *all* major segments of the private sector to work together to create a blueprint for effective solutions.

In each state legislature, key legislative leaders have already established themselves as energy policy experts. These key legislators—elected from cities, towns and rural areas throughout America—will shape and guide the formulation of their state energy programs. They will be responsible for translating the legitimate interests of their constituents, their state and their region into policy decisions which will become an important part of the overall national strategy for meeting our energy needs.

Congress has recognized the critical role of the states in resolving the energy crisis, and has assigned them responsibility for implementing key sections of the National Energy Act.

NATIONAL TOWN MEETING

LEGIS/50-The Center for Legislative Improvement has defined the need for a national convocation of state legislative policymakers to discuss energy needs, explore alternative policy options, and plan integrated state, regional and 50-state energy programs. In response to this need, LEGIS/50 has created the first "National Legislative Town Meeting on Energy" bringing together four key state legislative energy policy leaders from each of the 50 states for an intensive three-day exploration and discussion of energy policy alternatives.

Although unprecedented in modern America, the strategy of bringing together official delegations from all the states to seek solutions to specific national crises has occurred four other times in our history. In 1785, 1786, 1787 and again in 1861 representatives of the states met together to address the then pressing problems of trade, commerce, a new constitution and peace. LEGIS/50's Town Meeting on Energy reawakens this tradition of responding to national emergencies with special state level involvement.

The agenda for the Town Meeting will have two principal components: *First*, keynote speeches and panel presentations by top officials of the Department of Energy, the White House, Congressional energy committees, energy industries and public interest groups. *Second*, small workshop sessions which will encourage state legislators, program participants and other resource people to exchange information, discuss alternative policy options, and develop concrete programs to be proposed to the 50 state legislatures in 1980.

Denver, Colorado, which is emerging as a new, major energy center, has been selected as the site. It is the home of the Department of Energy's Solar Energy Research Institute and it has a central location with excellent transportation facilities.

LEGIS/50 selected December 17th through the 19th as the dates for the conference in order to prepare the 200 participating state legislators for the 1980 legislative sessions.

Public access to the deliberations is being encouraged. In addition to news media coverage of the Town Meeting, LEGIS/50 has arranged to make the conference available to cable television systems. Television and radio will be afforded opportunities to tape sessions of the Town Meeting for use in their own reports on the meeting.

Partial funding for the Town Meeting has been provided by the U.S. Department of Energy. Because LEGIS/50 believes that convening the Town Meeting is critical both to the success of national energy policy and as a vehicle for demonstrating the importance of cooperative state action for national domestic energy policy formulation, it will allocate a substantial part of its own resources for this project. These resources are drawn from unrestricted contributions to LEGIS/50 from foundations, businesses and other segments of the private sector.

Morrison Plenary Session (1978 DOE)

DOE
- Home weatherization
- Energy extension
- Energy conservation
- Appropriate Technology small grants
- Schools + hospitals
- Emergency building temperature
- Vocational technical → Alcohol fuels



→ Energy R&D Institute (CFI, CAT)
→ Conservation bond issue / public works
→ Renewable Energy / Conservation Omnibus

Warranty on energy performance in bldgs

"the separate states"

Local
Mayor Shepherd
CONSERVATION — problem is centralized approach
Need community-based Advisory committee
Solar orientation of all new bldgs. Portland OR comprehensive

12.5% SEVERANCE (including taxes?)
20 mill PROPERTY VALUE
9.5% CORP. PETROLEUM INCOME

12½–20% ROYALTY

(1975-77 20 mill Reserves Tax)

OIL + GAS LEASING POLICY:

Best potential tracts
- Fixed bonus ($1–$10 M) plus
- Fixed royalty (20%) plus
- Net profits – bid variable

Other tracts
- Fixed royalty (20%) plus
- Bonus bid variable

Some sliding scale royalty

OTHER PARTICIPANTS

ADRIENNE ANDERSON, Director of Mountain Plains Congress of Senior Organizations, Denver, Colorado

WILLIAM ARNTZ, Regional Representative - Region IX, Department of Energy, San Francisco, California

DOUG BASTON, Field Representative, National Center for Appropriate Technology, Golden, Colorado

JERRY BATHKE, Office of Intergovernmental Affairs, Department of Energy, Washington, D.C.

ROBERT H. BAUER, Regional Representative - Region V, Department of Energy, Chicago, Illinois

ROGER BILLINGS, Vice President for Gas Supply, Exploration, and Production, Kansas-Nebraska Natural Gas Company, Inc., Lakewood, Colorado

LOUIS CENTOFENTI, Regional Representative - Region IV, Department of Energy, Atlanta, Georgia

KEN COLE, Governmental Affairs Representative, AMOCO, Denver, Colorado

RICK COLLINS, Research Analyst, House Natural Resources and Energy Committee, Phoenix, Arizona

CLARENCE COUNCIL, Assessment and Integration Division, Department of Energy, Lakewood, Colorado

JAMES CUNNINGHAM, Executive Assistant to the Chairman, Power Authority of the State of New York, New York City, New York

JACK DALEY, Office of Intergovernmental Affairs, Department of Energy, Washington, D.C.

JEANNE DAVIS, Administrative Assistant, Massachusetts House of Representatives, Boston, Massachusetts

K. WAYNE DONELSON, Legislative Coordinator, Texaco, Inc., Denver, Colorado

JIM EDGAR, Office of the Governor, State of Illinois, Springfield, Illinois

R. BROOKS GARNER, Public Affairs Division, Phillips Petroleum Company, Bartlesville, Oklahoma

ROBERT GUSTAD, Director of Public Affairs, Colorado Rural Electric Association, Denver, Colorado

C. L. HARMER, Associate Director, Policy and Planning, Colorado Office of Energy and Conservation, Denver, Colorado

ERNESTINE HARRIS, Conservation Specialist, Department of Energy, Philadelphia, Pennsylvania

STEVE HARRIS, Manager, Governmental Policy Analysis, Sun Gas Company, Dallas, Texas

ED HEINTZ, Regional Representative for State Governmental Relations, Sun Company, Inc., Dallas, Texas

DR. PETER HOUSE, Director, Office of Technology Impact, Department of Energy, Washington, D.C.

LARRY HUGHES, Policy Analyst, Office of Intergovernmental Affairs, Department of Energy, Washington, D.C.

ROBERT M. HALLMAN, Deputy General Counsel, Office of General Counsel, Department of Energy, Washington, D.C.

BARRETT JOHNSON, Staff Director, Florida Legislature, Tallahassee, Florida

VINCE KAVLICK, Fluor Corporation, Irvine, California

GENE KLUG, Policy Analyst, Office of Environment, Policy Analysis Division, Department of Energy, Washington, D.C.

JOHN LATTIMER, Director, Illinois Intergovernmental Cooperation Commission, Springfield, Illinois

DANA LEE, Manager, Governmental Sales, Fluor Corporation, Irvine, California

MARGARET LeJUSTE, Production Assistant, Research Communications Center, Colorado School of Mines, Golden, Colorado

NATALIE LOBE, Conservation and Solar Energy, Department of Energy, Washington, D.C.

ROBERT LOW, Regional Representative - Region II, Department of Energy, New York City, New York

JOHN A. MASSON, JR., Public Affairs Coordinator, Texaco, Inc., Denver, Colorado

STEVEN MOSS, Community Organizer, People's Utility Alliance, Denver, Colorado

BETH NELSON, Program Analyst, Department of Energy, Washington, D.C.

JIM PATTERSON, Research Associate, Research Communications Center, Colorado School of Mines, Golden, Colorado

AMOS PLANTE, Public Affairs Coordinator, Exxon Company, U.S.A., Denver, Colorado

ARMAND REISER, Consultant, Office of Nuclear Waste Management, Department of Energy, Washington, D.C.

BOB RUBIN, Assistant Director, Research Communications Center, Colorado School of Mines, Golden, Colorado

RUDY SCHREIDER, Partner, Touche Ross and Company, Denver, Colorado

ESTHER SIMON, Executive Director, Keep Colorado Beautiful, Denver, Colorado

TOM STEICH, Counsel, Maryland General Assembly, Senate Economics Affairs Committee, Annapolis, Maryland

GEORGE TUNG, Chief of Economic Research, Office of State Planning and Budgeting, Denver, Colorado

GORDON VANDER TILL, Intergovernmental Relations Specialist, Department of Energy, Washington, D.C.

SUSAN WALDORF, Research Associate, Research Communications Center, Colorado School of Mines, Golden, Colorado

LYNN WALLIS, Consultant, General Electric Company, San Jose, California

KENT WARE, Regional Representative of Public Affairs, Gulf Oil Corporation, Denver, Colorado

HERBERT WEINBLATT, Jack Faucett Associates, Chevy Chase, Maryland

RICHARD WESTFALL, Policy Analyst, Public Service Company of Colorado, Denver, Colorado

TED WILLIAMS, Director, Policy Analysis Division, Department of Energy, Washington, D.C.

J. MICHAEL WISNIEWSKI, Intergovernmental Relations Specialist, Department of Energy, Washington, D.C.

EMORY "KEN" WORLEY, Intergovernmental Relations Specialist, Department of Energy, Philadelphia, Pennsylvania

National Planning Issues (FY81 DOE)

DOE
- Home weatherization
- Energy extension
- Energy conservation
- Appropriate Technology small grants
- Schools + hospitals
- Emergency building temperature
- Vocational technical → Alcohol fuels

→ Energy R&D Institute (CFI, CAT)
→ Conservation bond issue / public works
→ Renewable Energy / Conservation Omnibus

Warranty on energy performance in bldgs

"the separate states"

Local
Mayor Shepherd
- CONSERVATION — problem is centralized approach
- Need community-based Advisory committee
- Solar orientation of all new bldgs. Portland OR comprehensive

12.5% SEVERANCE (includes taxes?)
20 mill PROPERTY VALUE
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OIL + GAS LEASING POLICY:

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other tracts
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Some sliding scale royalty

Remarks Prepared for Presentation By
Henry G. Bartholomew
Chief, Emergency Programs
Office of Conservation and Solar Energy
U.S. Department of Energy

to

LEGIS 50 Conference
National Conference of State Legislators

Denver, Colorado
December 18, 1979

ON NOVEMBER 5, 1979, THE PRESIDENT SIGNED INTO LAW THE "EMERGENCY ENERGY CONSERVATION ACT OF 1979" (EECA, PUB.L. 96-102). IN SO DOING, HE SET INTO MOTION A SERIES OF ACTIVITIES WHICH, IF SUCCESSFULLY IMPLEMENTED, WILL RESULT IN A NEW NATIONAL FRAMEWORK FOR RESPONDING TO FUTURE ENERGY SHORTAGES. IN RECENT YEARS, ESPECIALLY SINCE THE OIL EMBARGO OF 1973-74, WE HAVE WITNESSED, AND SUFFERED THE CONSEQUENCES OF A SERIES OF ENERGY EMERGENCIES, THE MOST RECENT BEING THE RESULT OF THE REVOLUTION AND CONTINUING DISRUPTIONS IN IRAN.

TODAY, SIX YEARS AFTER THE 1973-74 OIL EMBARGO, WE ARE MORE DEPENDENT THAN EVER UPON FOREIGN SOURCES FOR OIL, WHICH COMPRISE ROUGHLY ONE-HALF OF OUR ENERGY CONSUMPTION. SINCE 1973 WE HAVE SEEN THE WORLD PRICE OF OIL INCREASE OFFICIALLY BY ROUGHLY A FACTOR OF TEN -- AND ON THE "SPOT" MARKET, EVEN MORE. RECENT EVENTS IN IRAN, AND ELSEWHERE, HAVE DEMONSTRATED VIVIDLY OUR VULNERABILITY.

BY NOW IT SHOULD BE CLEAR TO EVERYONE THAT THE UNITED STATES MUST MOVE TO A POSITION OF RELATIVE INDEPENDENCE WITH RESPECT TO ITS ENERGY NEEDS. IN THE LONG RUN, THIS MEANS INCREASED DOMESTIC PRODUCTION OF OIL AND NATURAL GAS, THE COMMERCIALIZATION OF TECHNOLOGIES FOR THE PRODUCTION OF SYNTHETIC FUELS AND GREATER USE OF REPLENISHABLE AND INEXHAUSTABLE SOURCES OF ENERGY SUCH AS SOLAR. WE MUST DO THIS NOT ONLY BECAUSE OF OUR INCREASING DEPENDENCE UPON UNRELIABLE AND COSTLY FOREIGN SUPPLIERS, BUT ALSO BECAUSE SOMEDAY WE WILL NO LONGER BE ABLE TO AFFORD THE PRICE OF OIL, A COMMODITY WHICH CLEARLY IS IN LIMITED SUPPLY.

IN THE MEANTIME, WHILE WE ARE MOVING TOWARDS ENERGY INDEPENDENCE, WE MUST ANTICIPATE FREQUENT DISRUPTIONS IN THE DELICATE BALANCE BETWEEN OUR NEEDS FOR OIL AND THE AVAILABLE SUPPLY AND COST OF OIL. THOSE DISRUPTIONS MAY ARISE FOR ANY NUMBER OF REASONS RANGING FROM EVEN MORE SERIOUS PROBLEMS IN THE MID-EAST, OR ELSEWHERE IN THE WORLD, TO SEVERLY COLD WINTERS WHICH OVERTAX OUR LIMITED SUPPLIES, EXCESSIVE AND UNNECESSARY USE OF GASOLINE BY THE DRIVING PUBLIC, OR MAJOR BREAKDOWNS IN REFINERY OPERATIONS, ELECTRIC UTILITIES OR PIPELINE SYSTEMS.

ONE WAY FOR US TO RESPOND TO THESE RECURRING ENERGY EMERGENCIES IS TO HAVE AVAILABLE EMERGENCY DEMAND RESTRAINT MEASURES WHICH CAN BE INVOKED AS TIMING AND CIRCUMSTANCES DICTATE. THE "EMERGENCY ENERGY CONSERVATION ACT OF 1979" PROVIDES A FRAMEWORK FOR DOING THAT.

THAT ACT CONSISTS OF TWO MAJOR PARTS, TITLE I, WHICH DEALS WITH A STANDBY GASOLINE RATIONING PROGRAM, AND TITLE II, WHICH COVERS EMERGENCY ENERGY CONSERVATION. MY REMARKS HERE ADDRESS ONLY TITLE II.

THE EASIEST WAY TO SUMMARIZE THE REQUIREMENTS AND OPPORTUNITIES PRESENTED IN TITLE II IS TO WALK THROUGH A SERIES OF CHRONOLOGICAL EVENTS WHICH ARE MANDATED OR ALLOWED UNDER THE LAW.

FIRST, WITHIN 90 DAYS OF ENACTMENT (WHICH WAS NOVEMBER 5, 1979), THE U.S. DEPARTMENT OF ENERGY (DOE) IS REQUIRED TO PUBLISH A "STANDBY FEDERAL CONSERVATION PLAN." THAT PLAN IS SCHEDULED TO BE PUBLISHED ON FEBRUARY 4, 1980 AS AN INTERIM FINAL RULE, WHICH WILL BECOME EFFECTIVE IMMEDIATELY.

NEXT, AT ANY TIME, THE PRESIDENT IS AUTHORIZED TO ESTABLISH EMERGENCY ENERGY CONSERVATION TARGETS FOR THE NATION AND FOR EACH STATE AND TERRITORY. HE MUST FIRST FIND THAT SUCH ACTION IS REQUIRED BECAUSE EITHER "A SEVERE ENERGY SUPPLY INTERRUPTION EXISTS OR IS IMMINENT," OR TO "FULFILL THE OBLIGATIONS" OF THE UNITED STATES UNDER THE INTERNATIONAL ENERGY PROGRAM. THE TARGETS MUST BE SPECIFIC TO A FUEL OR AN ENERGY SOURCE, SUCH AS GASOLINE, HEATING OIL OR ELECTRICITY.

WITHIN 45 DAYS OF THE ESTABLISHMENT OF STATE-BY-STATE TARGETS, THE GOVERNORS ARE REQUIRED TO SUBMIT PLANS FOR MEETING THOSE TARGETS TO AND FOR THE APPROVAL OF THE SECRETARY OF ENERGY. THE SECRETARY, IN TURN, IS REQUIRED TO APPROVE THE PLAN, OR REJECT IT FOR CAUSE, WITHIN 30 DAYS.

IF A STATE FAILS TO PRESENT A SUITABLE AND EFFECTIVE PLAN, DOE IS AUTHORIZED TO INVOKE PROVISIONS OF THE STANDBY FEDERAL CONSERVATION PLAN WITHIN THAT STATE.

AFTER A STATE PLAN HAS BEEN APPROVED AND IMPLEMENTED, THE PRESIDENT MAY, AFTER A REASONABLE PERIOD OF TIME, BUT NOT LESS THAN 90 DAYS, FIND THAT THE STATE PLAN IS NOT MEETING ITS OBJECTIVES, AND IS NOT LIKELY TO MEET THEM IN THE FUTURE. IF, UPON MAKING SUCH A FINDING, THE PRESIDENT ALSO DETERMINES THAT A SHORTAGE OF AT LEAST 8 PERCENT OF THE PROJECTED NORMAL DEMAND FOR THAT FUEL EXISTS, OR IS LIKELY TO EXIST FOR AT LEAST THE NEXT 60 DAYS, THE DEPARTMENT OF ENERGY IS AUTHORIZED TO INVOKE THE STANDBY FEDERAL CONSERVATION PLAN IN THAT STATE.

WHAT I HAVE JUST PRESENTED IS A SIMPLE AND BRIEF SUMMARY OF THE MAJOR ELEMENTS OF THE ACT. OBVIOUSLY, THERE ARE NUMEROUS DETAILED FACTORS WHICH ARE OF CONSIDERABLE IMPORTANCE. BUT, THE AREA ON WHICH I WOULD LIKE TO FOCUS YOUR ATTENTION REVOLVES AROUND SOME KEY LANGUAGE NOT IN THE ACT ITSELF, BUT IN THE REPORT OF THE HOUSE-SENATE CONFERENCE ON THE BILL, S. 1030:

> "AT THE REQUEST OF THE GOVERNORS, THE LEGISLATION GIVES THE STATES THE OPPORTUNITY TO TAKE THE LEAD IN EMERGENCY ENERGY CONSERVATION PLANNING. THE CONFEREES EXPECT THE STATES TO ACT QUICKLY IN DEVELOPING THESE PLANS.
>
> THE CONFEREES RECOGNIZE THAT THE ANTICIPATION OF FUTURE ENERGY EMERGENCIES IS INHERENTLY AN IMPRECISE PROCESS. HOWEVER, CONTINGENCY PLANNING FOR EMERGENCIES IS CARRIED OUT SUCCESSFULLY IN MANY AREAS OF CONCERN. THE AIM OF THIS TITLE (TITLE II) IS TO SEE THAT EFFECTIVE STATE EMERGENCY CONSERVATION PLANS ARE DEVELOPED AND AVAILABLE FOR USE WHEN THEY ARE NEEDED. THE CONFEREES THEREFORE EXPECT THE SECRETARY OF ENERGY TO MAKE EVERY REASONABLE EFFORT TO GET STATES INVOLVED IN SUCH PLANNING IN ADVANCE OF THE OCCURENCE OF AN EMERGENCY."*

IN SECTION 212 OF THE ACT, THE STATES ARE EXPRESSLY ENCOURAGED TO SUBMIT PLANS AS SOON AS POSSIBLE AFTER THE DATE OF ENACTMENT AND IN ADVANCE OF ANY FORMAL TARGET-SETTING PROCESS; AND DOE IS REQUIRED TO TENTATIVELY APPROVE SUCH PLANS SO THEY WILL BE READY FOR IMPLEMENTATION IF AND WHEN NEEDED.

IT WAS IN THE SPIRIT OF THIS NEED TO MOVE QUICKLY THAT DOE EMBARKED UPON AN EFFORT TO COMMUNICATE AND COORDINATE WITH THE STATES THROUGH EXISTING ORGANIZATIONS AND NETWORKS, SUCH AS THE NATIONAL GOVERNORS' ASSOCIATION AND THE NATIONAL CONFERENCE OF STATE LEGISLATORS.

WE ALSO HAVE SOLICITED PUBLIC COMMENT ON MEASURES WHICH SHOULD OR SHOULD NOT BE INCLUDED IN THE STANDBY FEDERAL PLAN THROUGH A NOTICE IN THE FEDERAL REGISTER ON DECEMBER 7. WE INTEND TO PUBLISH FOR COMMENT, IN EARLY TO MID-JANUARY, SOME OF THE CANDIDATE MEASURES FOR THE PLAN. BUT, MORE DIRECTLY, WE ARE ASKING FOR YOUR INVOLVEMENT IN THE PLANNING PROCESS TO THE EXTENT THAT IT IS FEASIBLE.

WE HAVE AN EXTREMELY TIGHT SCHEDULE WHICH WE INTEND TO MEET. I CAN ALMOST GUARANTEE THAT THE INTERIM FINAL PLAN WHICH WE WILL PUBLISH ON FEBRUARY 4 WILL BE CHANGED AFTER WE HOLD HEARINGS, RECEIVE ADDITIONAL PUBLIC COMMENT AND CONTINUE OUR OWN ANALYTICAL EFFORTS. IN

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*U.S. Senate Report No. 96-366, pgs. 35-36

FACT, I EXPECT THAT IT WILL CHANGE RELATIVELY FREQUENTLY AS ADDITIONAL MEASURES ARE DEVISED AND ANALYZED, OR EVEN TESTED IN PRACTICE. OUR DATA BASES FOR MONITORING SUPPLY AND CONSUMPTION, ON A STATE-BY-STATE BASIS, WILL IMPROVE, AS WILL OUR CAPABILITY TO MEASURE PROGRESS TOWARDS ANY TARGETS WHICH MAY BE ESTABLISHED IN THE FUTURE.

AND SINCE I HAVE AGAIN MENTIONED TARGETS, LET ME SET THE RECORD STRAIGHT ON THE INTERIM VOLUNTARY GASOLINE TARGETS WHICH WERE ANNOUNCED BY ENERGY SECRETARY DUNCAN ON DECEMBER 6. FIRST, AND MOST IMPORTANTLY (AND I QUOTE FROM THE LETTER SENT TO THE GOVERNORS BY DEPUTY SECRETARY JOHN SAWHILL, TRANSMITTING THOSE TARGETS), THESE TARGETS ARE VIEWED "AS THE FIRST STEP IN PLANNING FOR THE IMPLEMENTATION OF THE EMERGENCY ENERGY CONSERVATION ACT."

WE KNOW THAT THE TARGETS, AS ISSUED EARLIER THIS MONTH, ARE NOT PERFECT, LARGELY BECAUSE THEY RELY UPON AN IMPERFECT DATA BASE. AT THE PRESENT TIME, THE BEST NATIONALLY AVAILABLE SOURCE OF DATA ON GASOLINE SALES IS THE FEDERAL HIGHWAY ADMINISTRATION'S SYSTEM WHICH COLLECTS GASOLINE TAX REVENUE REPORTS FROM THE STATES. THIS BASE DOES NOT ACCOUNT FOR ALL GASOLINE WHICH IS EITHER SOLD OR CONSUMED. NOR IS IT A WHOLLY ACCURATE REFLECTION OF PRECISELY WHEN THE GASOLINE WAS SOLD.

AS A RESPONSE TO THIS PROBLEM, WE ARE NOW WORKING WITH THE GOVERNORS AND THROUGH THE NATIONAL GOVERNORS' ASSOCIATION TO DETERMINE IF THERE MAY BE A BETTER APPROACH WHICH CAN BE QUICKLY AND RELIABLY IMPLEMENTED. TO THE EXTENT THAT NEW OR REVISED LEGISLATION MAY BE NEEDED IN SOME STATES, YOUR HELP AND CONSIDERATION WILL BE ESSENTIAL.

THERE ARE OTHER AREAS WHERE NEW OR REVISED LEGISLATION MAY BE NEEDED TO ALLOW THE EFFECTIVE PLANNING AND IMPLEMENTATION OF STATE CONSERVATION MEASURES. WE KNOW, FOR EXAMPLE, THAT THERE ARE SEVERAL STATES WHERE THE GOVERNOR DOES NOT HAVE ADEQUATE AUTHORITY UNDER STATE LAW TO IMPLEMENT CERTAIN EMERGENCY MEASURES -- OR THE STATE MAY BE CONSTRAINED IN USING OR ACCEPTING FEDERAL GRANT FUNDS. IN OTHER INSTANCES, THERE ARE REGULATORY CONSTRAINTS -- BOTH FEDERAL AND STATE -- TO THE EFFECTIVE APPLICATION OF CERTAIN KEY ALTERNATIVE ACTIONS, MOST NOTABLY WHERE RELAXATION OF ENVIRONMENTAL STANDARDS MAY BE INVOLVED.

ONE FINAL POINT HAS TO DO WITH THE VERY IMPORTANT MATTER OF FINANCIAL ASSISTANCE. PLANNING AND IMPLEMENTING EMERGENCY ACTIONS REQUIRES RESOURCES. TO AFFORD SUPPORT FOR PLANNING AT THE STATE LEVEL, DOE HAS SUBMITTED, AND THE OFFICE OF MANAGEMENT AND BUDGET HAS APPROVED, A REQUEST TO CONGRESS FOR A $10 MILLION SUPPLEMENT TO THE FISCAL YEAR 1980 BUDGET, EXPRESSLY FOR GRANTS TO THE STATES FOR EMERGENCY ENERGY

CONSERVATION PLANNING. WHILE AWAITING THE HOPED FOR CONGRESSIONAL APPROVAL, WE HAVE OPENED THE WAY FOR STATE ENERGY OFFICES AND THE GOVERNORS TO AMEND THEIR FORTHCOMING 1980 STATE PLANS UNDER THE STATE ENERGY CONSERVATION PROGRAM, TO INCORPORATE EMERGENCY PLANNING AND IMPLEMENTATION. BY SO DOING, FUNDING MAY BECOME AVAILABLE FAIRLY QUICKLY. AGAIN, TO THE EXTENT THAT THE STATE LEGISLATURE HAS A ROLE IN THIS PROCESS, WE WOULD HOPE FOR YOUR ASSISTANCE IN EXPEDITING APPLICATIONS FOR AND DISBURSEMENT OF FEDERAL GRANT FUNDS FOR THESE PURPOSES.

IN SUMMARY, I WOULD SINCERELY URGE EACH OF YOU AND YOUR COLLEAGUES IN THE NATION'S STATE LEGISLATURES TO RISE TO THE CHALLENGE THAT WE ALL FACE NOW AND WILL FOR SOME TIME TO COME -- THE CHALLENGE OF AMERICA'S SURVIVAL AS A FREE AND INDEPENDENT NATION AND A WORLD LEADER. WE HAVE BEEN TAUGHT SOME TOUGH LESSONS IN RECENT YEARS ABOUT HOW IMPORTANT ENERGY IS TO US, AND THE TROUBLE WE'LL BE IN IF WE DON'T RESPOND QUICKLY AND WISELY. THE LONG-TERM SOLUTIONS ARE WITHIN OUR GRASP; YET LONG-TERM ENERGY SECURITY IS STILL AROUND THE CORNER. IN THE MEANTIME, WE MUST BE ABLE TO ROLL WITH THE PUNCHES, BOTH THE JABS AND THE ROUNDHOUSE UPPERCUTS WHICH HAVE THE POTENTIAL TO KNOCK US OUT. ONE WAY TO DO THAT IS TO TAKE THE OPPORTUNITY AND THE CHALLENGE PRESENTED TO US IN THE EMERGENCY ENERGY CONSERVATION ACT AND TOGETHER PREPARE OURSELVES FOR THE FUTURE.

YOU ARE, AS STATE LEGISLATORS, IN A KEY POSITION TO CONTRIBUTE TO AMERICA'S ENERGY INDEPENDENCE. YOU HAVE WITHIN YOUR GRASP THE ABILITY TO ENHANCE THE PROCESS OR TO RETARD IT. I WOULD HOPE YOU WILL RISE TO THE CHALLENGE THAT HAS BEEN CAST BEFORE YOU.

I BELIEVE WE ARE EQUAL TO THE CHALLENGE AND THAT, TOGETHER, AS AMERICANS, WE CAN STRENGTHEN AND PROTECT THE NATION, THAT WE, EACH IN OUR OWN WAY, HAVE ACCEPTED RESPONSIBILITY FOR.

AS A FEDERAL BUREAUCRAT, AND WITH ALL THAT IMPLIES, I REQUEST YOUR SUPPORT AND ACTIVE PARTICIPATION IN THE TASK THAT CONGRESS HAS SET BEFORE US. AND TOGETHER, I AM CONFIDENT, WE CAN HELP BUILD A MORE SECURE AMERICA AND AGAIN PROVE OUR PRESTIGE AMONG NATIONS.

LEGIS/50
Center for Legislative Improvement

NATIONAL LEGISLATIVE TOWN MEETING ON ENERGY

Brown Palace Hotel

Denver, Colorado

December 17-19, 1979

SPEAKERS AND PANELISTS

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JAMES E. ARNOLD has been the executive director of LEGIS/50 - The Center for Legislative Improvement since September of 1978. Prior to his appointment, Arnold served as LEGIS/50's director of operations, with overall responsibilities for nation-wide projects and studies. He joined LEGIS/50 in 1973 as manager of the 10 state Model Committee Staff Project in Health. Arnold has served as chief assistant to the lieutenant governor and the speaker of the Tennessee Senate. He was executive director of the Tennessee Democratic Legislative Campaign Committee and was also executive director of the Hermitage, the presidential museum and library of Andrew Jackson. Arnold holds a bachelor of arts degree from Harding College, was a graduate fellow in the American literature doctoral program at Vanderbilt University and did advanced study on a fellowship at Attingham College, Shropshire, England.

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HENRY G. BARTHOLOMEW is chief of Emergency Programs in DOE's Office of Conservation and Solar Energy. He is also chairman of the Task Force on the Development of a Standby Federal Energy Conservation Plan. Bartholomew's primary responsibility is to implement the Emergency Building Temperature Restrictions Program, which is presently the only emergency conservation program the government has under the Emergency Energy Conservation Act. Bartholomew has been involved in federal energy programs since 1975. In 1977, he directed a nationwide series of over 600 energy conservation workshops for senior business executives. He is also experienced in the fields of aerospace and scientific and medical instrumentation. Bartholomew has a B.S. degree in engineering from U.C.L.A.

JAMES T. BARTIS is acting director for the office of Plans and Technology Assessment in the U.S. Department of Energy. He joined the Office of Energy Research of the DOE in 1978; transferred to the Office of Fossil Energy Program as director of the Division of Planning and Systems Engineering in 1979. Bartis received his Sc.B., Ph.D. in chemistry and physics from Brown University. He is visiting scientist at the Weizmann Institute and research associate in chemistry at Cornell University.

RONALD BEDRICK is program analyst of the Energy Liaison Center in DOE's Economic Regulatory Administration (ERA). He is responsible for liaison with state and local governments on ERA policies, rules, and regulations. The Energy Liaison Center facilitates an exchange of information between ERA and the states by informing the states of ERA actions on a timely basis and by alerting the ERA administrator to emerging problems related to the impact of regulations on the states. The Energy Liaison Center also develops documents and publications to assist the states in energy emergency preparedness. Prior to his current assignment, Bedrick worked in DOE's Office of Conservation and Solar Applications. His interest is in energy policy, energy law, and renewable resources. Bedrick has a B.A. degree in sociology from Brown University, and a J.D. degree from Antioch School of Law in Washington, D.C.

JASON BOE is the president of the Oregon State Senate. See Legislator Biographies.

ROY B. BRACKEN is the division administrator of the Technology Dissemination Division of the Solar Energy Research Institute. He is the director of SERI's International Visitors Program and a member of the Developing Countries Branch. He served in the Federal Energy Administration (1974-78) occupying positions as staff analyst, Office of Exceptions and Appeals; executive staff liasion officer to the Federal Regional Council; conservation specialist; and case resolution and special inquires officer. Bracken's present activities include service as a member of the Federal Regional Council's committees on Migrant and Seasonal Farm-Workers' Energy Conservation, Interagency Committee and the Socio-Economic Impacts Committee. Bracken served as a member of the Denver Federal Executive Board's Committee on Energy and Environment, and on various Federal Energy Administration task forces, one of the more significant being the task force to develop a regional consumer representation plan. He is a graduate of the University of Nebraska and has done graduate work at the University of Denver College of Law. In 1975, Bracken was honored with a Special Achievement Award from the Federal Energy Administration for exemplary service.

DAVID F. BRAMHALL is a senior economist with Abt Associates, Denver office, specializing in regional economics, resource and energy economics, economic development policy analysis, and input-output modeling. He is currently involved in economic and demographic assessment in the Central Arizona Project, and has recently conducted research on the impact of energy development on the Denver Metropolitian area. Bramhall holds a Ph.D. in regional science from the University of Pennsylvania, M.A. and a B.A. in economics from the University of Colorado.

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MARIO CARDULLO is co-chairman of the Coordinating Committee of the National Petroleum Council of Energy Transportation Studies. He was director of Energy Supply and Transportation for 5 1/2 years. He has held the position of president of two technology companies and has written and published over 100 papers. Cardullo holds an undergraduate and a master's degree in mechanical

engineering. He is also a successful chef, appears on television and is in the process of writing a cook book on Italian cuisine.

JOHN CARLIN was elected Kansas' 40th Governor in November, 1978. Prior to that he had served eight years in the Kansas Legislature, having been the first Democrat elected Speaker of the House in 64 years. Carlin graduated from Kansas State University in 1962 with a B.S. in Dairy Science. Since then he has operated an 800 acre family farm in central Kansas, one of the most successful registered Holstein dairy operations in the midwest. He is also a grain producer. Carlin is a member of the Executive Committee of the National Governors' Association.

WILLIAM COLE is vice president - gas supply for the Southern California Gas Company in Los Angeles. Mr. Cole has served as legal examiner and senior counsel of the California Public Utilities Commission. His involvement in gas-related activities includes membership on the advisory board of International Oil and Gas Educational Center, American Gas Association's Gas Supply Committee, chairman of the subcommittee on Coal Gasification and a member of the Pacific Coast Gas Associations Gas Supply Committee. He serves on Senator S. I. Hayakawa's Advisory Committee on Energy and is a graduate of the Univesity of California.

JIM DIECKHONER is chief of operations for the Division of Waste Products in the Office of Nuclear Waste Management for D.O.E. His major activities related to D.O.E. are the Interim Waste Management Operations and the technical development program for the long term management of TRV and low level waste. His interests are prediction of radiation effects, instrumentation support for radio biological experiments; and fallout prediction for nuclear weapons tests. From 1970 to 1976 he was with the Public Health Service, the U.S. Environmental Protection Agency and was active in the evaluation of environmental impact power plants; AEC Commission, ERDA activities and NASA programs. Dieckhoner has a B.S. degree from Ohio University, majoring in Chemistry and a M.S. from the Air Force Institute of Technology.

JOHN DYSON is chairman of the Power Authority of the State of New York, and an ex officio member of the New York State Energy Research and Development Authority. He served nearly four years as New York State Commerce Commissioner and prior to that was Commissioner of New York State's Department of Agriculture and Markets. A graduate of Princeton University's Woodrow Wilson School of Public and International Affairs, Mr. Dyson is a past president and publisher of Dymer Communications, Inc; a weekly newspaper publishing firm in New York State. Mr. Dyson is a trustee of the Holy Land Conservation Fund, former treasurer of the Foxfire Fund, and the author of "Our Historic Hudson", a book on the history and historic sites fof the Hudson Valley.

DENNIS E. ECKART is a state representative from Ohio.

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BILL FERGUSON is a research assistant, Energy Program, for the National Conference of State Legislatures in Denver, Colorado. A graduate of Yale University and the Fleming Law School of the University of Colorado, Ferguson formerly was a practicing attorney in the Boulder, Colorado law firm of Barnard and Ferguson. From 1971 through 1974, he was a computer systems analyst for the Stanford Research Institute in Palo Alto, California conducting research for the Advanced Research Projects Agency in the Department of Defense.

GARY K. FISHER, a natural resource policy analyst, is the project manager of the Colorado Joint Review Process for Major Energy and Mineral Resource Developments in the executive director's office of the Colorado Department of Natural Resources. His special assignments include: state coordinator, Mt. Emmons Joint Review Process (concerns AMAX's proposed molybdenum mine near Crested Butte, Colorado), and Governor Lamm's designee for the U.S. Regulatory Council's Coal Project. Fisher holds a B.A. in social science and a M.A. in political science from Colorado State University.

KENNETH M. FRIEDMAN is acting director of the Policy Coordination and Support Division of Policy Planning and Evaluation in DOE's office of the Assistant Secretary for Conservation and Solar Applications. At DOE, Friedman has focused on transportation and energy related issues. He has served as chairman of the subcommittee on Alcohol Fuel Applications of DOE's Alcohol Fuels Policy Review Task Force. He has also been a part of DOE's recent deliberations on gasohol and alternative fuel policies. Furthermore, Friedman participated in a recent study by the National Academy of Sciences on "Alternate Energy: Demand Futures to 2010." In addition to his activities at DOE, he is project monitor of a Mellon Institute study examining the tradeoffs between future improvements of automotive fuel and the development of alternative fuels. Dr. Friedman received his M.S. and Ph.D. in political science at Michigan State University, and taught science policy at Purdue University before joining DOE in 1977.

GEORGE FUMICH is the assistant secretary designate for Fossil Energy, U.S. Department of Energy, Washington, D.C.

KEVIN GORMAN is assistant to the Under Secretary of Energy. From 1977 to 1979, he was assistant director of energy research and from 1975 to 1977 assistant press secretary to the President. Gorman graduated from Boston College with a major in political science and psychology, and he did graduate work in business administration at Harvard University.

STEVEN D. HARRIS is responsible for the development and implementation of the Sun Gas Company's policy position on state and federal legislation and regulations. Principal issues with which he has been involved include unconventional gas production incentives, retail service station divorcement, state severance tax policy and federal offshore gas production regulations. Harris is a graduate of Bowling Green State University and the Capital University Law School in Columbus. He also studied at Salzburg University in Austria. Harris has been active with the Interstate Oil Compact Commission and has served on energy committees and task forces on the National Governor's Association and numerous regional governmental groups.

WILLIAM HARRIS is staff counsel with the Atomic Industrial Forum. He served as counsel for four years to Mike McCormick who is subcommittee chairman to the Joint Committee on Atomic Energy and on the House Committee on Science and Technology. Harris served in the Army Signal Corps. He has a B.A. degree in agricultural business from Iowa State and a degree in law from the Georgetown University Law Center.

GERALD R. HILL currently serves as director of technology programs for the Southern States Energy Board (SSEB). Prior to joining SSEB, Hill was energy and environmental policy analyst for the Wisconsin Electric Power Company in Milwaukee. He serves as technical coordinator for the Southern Governors' Regional Energy Advisory Board to the Secretary of Energy. He is also vice-chairman of the Board's Regulatory Reform Committee. Hill holds a Ph.D. degree in environmental engineering from the University of Iowa.

WILLIAM HILSMEIER is a representative from the state of Colorado. See Legislator Biographies.

JOHN M. HOPKINS is the president of the Energy Mining Division of the Union Oil Company in Los Angeles. He has been with Union Oil since 1942 and president of his division since July 1979. Hopkins is responsible for the development and operation of Union's oil shale and uranium resources. He also serves on the Department of Energy Fossil Energy Advisory Committee, the National Research Council's Panel on Drilling Technology, and on the Los Angeles County Energy Commission. Hopkins received a degree in chemical engineering from the University of Colorado. He is a member of the American Institute of Chemical Engineering and of the American Petroleum Institute.

HUBERT H. HUMPHREY, III is a state senator from Minnesota. See Legislator Biographies.

CHARLES INGRAM is chairman of the Board, American Gas Associations.

NELSON J. JACOBS is Power Planning Coordinator in the Water and Power Resources Service in the U.S. Department of the Interior and is presently Study Director for the Service's Low-Head Hydroelectric Evaluation and Inventory of 17 western states. He also serves as coordinator for input into the small-hydro portion of the President's Rural Energy Initiatives Program and has 18 years of public and private sector experience with water and power resources. A professional engineer, Jacobs is a member representative of the Planning Coordination Committee of the Western Systems Coordinating Council and the author of several articles and technical papers on pumped storage and hydropower.

HAROLD KEOHANE is the Regional Representative of the Secretary, U.S. Department of Energy, Boston, Massachusetts. In 1975, he was appointed chairman of the Massachusetts Department of Public Utilities. Prior to being assistant secretary for Administration of Finance for the State of Massachusetts, Keohane had a private law practice. He was assistant Attorney General, assistant U.S. Attorney and assistant District Attorney. Keohane has a B.A. and Law degree from Harvard.

OBRA S. KERNODLE, III is DOE's Regional Representative of the Secretary in Philadelphia. An experienced lawyer, Mr. Kernodle serves as department senior spokesman for this DOE region which includes the states of Pennsylvania, Delaware, Maryland, Virginia, West Virginia and Washington, D.C. He coordinates DOE's dealings with state and local governments in the region, and

he administers DOE's regional energy planning activities. Prior to his joining DOE, Mr. Kernodle was an attorney for Sun Oil Company in Radnor, Pennsylvania, and he was involved in a variety of activities including corporate reorganization, international transactions, labor law, environmental law, governmental relations law, and major litigation matters. Mr. Kernodle earned a B.B.A. degree from Temple University, and received his J.D. degree from Columbia School of Law in New York City.

C. M. KITTRELL is executive vice president, petroleum products group, Phillips Petroleum Company in Bartlesville, Oklahoma. He is a director of the company and a member of the executive committee and was recently appointed chairman of the American Petroleum Institute's General Committee on Transportation. Kittrel has gained a reputation as a leading industry spokesman in the energy situation. He has appeared often on radio and television, including Good Morning, America, the MacNeil/Lehrer Report and the David Susskind Show. He has discussed the energy subject with newspaper reporters and editors representing such publications as the Boston Globe, St. Louis Dispatch and Los Angeles Times. Kittrell graduated from the University of Arkansas with a B.A. degree in industrial engineering.

KEITH KLEIN represents the Waste Isolation Division of the Office of Nuclear Waste Management (DOE). This division is responsible for site identification and the development of base technology and license facility for permanent disposal of highly radioactive waste. Mr. Klein has responsibility for portions of the site exploration program, including geological and environmental evaluations, and associated interactions with federal, state and local offices. In that regard, he contributed policy and technological analysis to the deliberation of the I.R.G. He joined as an energy department predecessor for the Atomic Energy Commission in 1973. Prior to his assignment in Nuclear Waste Management in February 1978, he worked in the Liquid Metal Fast Breeder Reactor Program on various projects including design of a facility for testing large water to sodium; leaks in steam generators; fast flux test facility; and field engineering and construction; and breeder fresh and spent fuel transportation and breeder fuel cycle analysis. Mr. Klein received his B.S. degree in electrical engineering from Cornell University and an M.S. degree in nuclear engineering from the Massachusetts Institution of Technology.

RICHARD D. LAMM serving his second term as governor of Colorado. His political career began with his election to the Colorado House of Representatives in 1966. A Democrat, he was assistant minority leader from 1971-74 and has been governor since January 14, 1975. Lamm is chairman of the Committee on Natural Resources/Environmental Management of the National Governors' Association, 1978. Among his chief goals as governor are the creation of a responsible growth and development policy for Colorado; the development of land, air and water policies that safeguard and improve Colorado's environment; the formation of the Western Governors' Regional Policy Office to ensure input by the West into federal policies; and the implementation of a comprehensive energy conservation program. Lamm has been a professor of law, an attorney and a certified public accountant. He is a graduate of the University of Wisconsin and of the University of California.

DANA LEE is the manager of government sales at the Fluor Corporation in Irvine, California. He has 20 years experience in the energy business, primarily in the area of nuclear power and fossil fuels. He is very interested in emerging energy technologies. Mr. Lee holds a master's degree in nuclear engineering from Union College in Schnectady, New York.

GERALD S. LEIGHTON is director of the Community Systems Division in DOE's office of the Assistant Secretary for Conservation and Solar Applications. He is responsible for organizing, developing and implementing tools and processes to assist communities in coping with energy related problems. Several of his specific activities include: the development and implementation of a program of loan guarantees and price supports for urban waste to energy projects; demonstration and commercialization of fuel cells as decentralized co-generation systems; general master planning that incorporates energy as a normal consideration in the design and planning process at the site and neighborhood level; comprehensive community energy management demonstrations; and urban revitalization activities. Leighton has a bachelor's degree in chemical engineering from the Polytechnic Institute of Brooklyn and a master's degree in engineering administration from George Washington University. He is currently studying for a doctorate in public administration.

NATALIE LOBE has worked for the Department of Energy (Energy Research and Development Administration) since 1976. As a specialist in socioeconomic and environmental impacts of new energy development, she has developed and managed research programs and worked on synthetic fuels legislation as it relates to environmental issues. She has also been responsible for program development in federal/state impact assistance to energy impacted communities and mitigation strategies associated with the environmental impacts of energy development. Prior to joining the federal government, Lobe was a public planner in various state and local planning agencies in the State of Maryland. She is a member of the American Institute of State Planners.

ISAAC McCRARY, JR. is a transportation planner in the Rail Planning Unit of the Minnesota Department of Transportation (formerly the Department of Highways). He has been in his current employment position for six months, having served seven years previously in the environmental impact section of the Department of Highways. He has published several major technical studies on a variety of issues and has recently completed a Rail Corridor Study detailing the impact of coal movement via railroads.

TONY MAGGIORE is the director of Community Services Administration in Milwaukee, Wisconsin.

CLARENCE M. MITCHELL, III is a state senator from Maryland.

W. MITCHELL has been the mayor of Crested Butte, Colorado since 1975. As a public official, he has been actively involved in a conflict with a proposed molybdenum mining project. This conflict is centered around the issue of mining operations and their incompatibility with other resources in the area which the major and Crested Butte residents claim are vital to a sound economy and environment for the town and vicinity. Mitchell has worked at such diverse jobs as radio announcer, school teacher, gripman on San Francisco cable cars, taxicab driver, and as an organizer on Senator Robert Kennedy's presidential campaign. Originally from Pennsylvania, Mitchell has been a resident of Colorado since 1970.

L. CALVIN MOORE became the vice president of the Oil Chemical and Atomic Workers International Union (OCAW) in August of this year. Among his responsibilities, he presides over three of the Union's departments: Legislative, Education and Research, and Human Relations. While serving as an advisor in labor affairs at Indiana University, Moore began his long association with OCAW as a local officer in Indianapolis, Indiana. He later became the Union's district council president for the midwestern states.

Subsequently, he served as OCAW's international representative in Houston, Texas, and then as legislative director in the Union's Washington office from which he was elected to his current position. OCAW is active in energy related matters, having participated, from a citizen's standpoint, in the Citizen Labor Energy Coalition in Washington, D.C.

GILBERT C MURPHY, a Presbyterian minister with a doctorate in divinity, is executive director of Seniors, Incorporated, a private, non-profit, multi-service agency for the elderly. He has been with the organization for five years. He was formerly Deputy Commissioner of Aging, St. Louis, Missouri.

MARY O'HALLORAN is the regional representative for the Department of Energy in Region VII which is comprised of the states of Iowa, Kansas, Missouri and Nebraska. Her responsibilities include administering the department's regional grant programs, coordinating regional energy planning activities, and providing overall direction for DOE's relations with the general public, state and local governments, business, labor and other groups concerned with energy policy. She served three terms in the Iowa House of Representatives, chaired the Iowa House Energy Committee, was selected the Iowa Conservationist of the year in 1978, and currently heads DOE's fuel supply management efforts in the central states area. She co-founded the Iowa Chapter of the National Women's Political Caucus and served on that organizations Natoinal Steering Committee and has been an active participant in the women's movement.

CHARLES G. OLENTINE is a general engineer located in the Division of Licensing and Siting of the Department of Energy.. He graduated from the United States Military Academy in 1949. He holds a master's degree in civil engineering from the Massachusetts Institute of Technology and a master's degree in International Affairs from George Washington University. In 1975, he joined the Federal Energy Administration which was merged into the Department of Energy.

M. S. (ABBY) PIRNIE is an independant consultant with the Policy Planning Division in the Environmental Protection Agency's office of Planning and Evaluation. She is responsible for overseeing the implementation of the agency's ongoing new source permit reforms. She is also concerned with evaluating the efficiency and effectiveness of how E.P.A. processes new source permit applications. In this capacity she has co-authored a report (still in draft form) on industrial planning processes in their relationships to and problems with environmental permit processing. She is also participating in the agency's effort to respond to legislation and governmental actions to fast-track permit applications for major energy facilities.

GERALD D. PLUNKETT, an inventor and energy technologist, is the managing director of the Montana energy and MHD (magnetohydrodynamics) Research and Development Institute (MERDI) in Butte. For the past 15 years he has also been active as a research and development (R&D) strategist primarily in energy. Dr. Plunkett is the founder of both the National Center for Appropriate Technology (NCAT), and the Center for Innovation (CFI). He has consulted with over 20 companies and 12 government agencies and, from a development standpoint, has assisted in putting approximately 50 products on the market. Dr. Plunkett was the first person in the U.S. to testify before Congress on the need for a large-scale, aggressive and diversified national energy R&D strategy. Finally, he has worked with state legislatures in Missouri, Iowa, Montana, and Colorado on energy and related issues. Dr. Plunkett earned his Ph.D. in metallurgy from the Massachusetts Institute of Technology.

WOLFGANG REPKE is assistant director in the Research and Analysis Division in the office of the assistant to the Secretary of the Department of Energy Legislative Affairs. His responsibilities include maintaining and tracking energy legislation. Repke has been with the Department of Energy and the Federal Energy Administration for four years. Previously he worked for the Department of the Army, Congressional Affairs in International Research and Development projects as an international negotiator and interpreter. Repke graduated from George Washington University with a B.A. degree in business administration.

GEORGE SHELDON is a representative from the state of Florida. See Legislator Biographies.

DAVID H. SHEPHERD has been the mayor of Oak Park, Michigan, since 1971. He has served on the Oakland County Board of Supervisors and on the Oak Park Planning Commission. In addition, he is and has been an active member of many other organizations and committees, a few of which are listed here: Michigan Municipal League, National League of Cities, National Association of Regional Councils, Energy and Environment Committee of the U.S. Conference of Mayors. Shepherd's varied activities with these and other groups center mainly around natural resources, energy, environment, finance and taxation issues. He has received several awards, the most recent being the Tom Bradley Leadership award which he received this year from the National Association of Regional Councils for being the year's most outstanding legislator in the country. Shepherd earned a B.A. in sociology from Wayne State University in Detroit.

ALBERTA SLAVIN is chairman of the Missouri Public Service Commission.

TODD SOSTEK is operations research analyst with the U.S. Department of Energy, Office of Policy and Evaluation, Division of Environmental and Institutional Impacts in Washington, D.C. His responsibilities include the analysis and evaluation of the environmental impacts of DOE programs and policies including the need for an effectiveness of ongoing DOE environmental efforts. Before assuming his present position in November, 1978, Sostek was air quality planner, State of California Air Resources Board, Air Quality Maintenance Planning Branch (AQMP), El Monte, California. Sostek is on leave of absence from UCLA's Environmental Science and Engineering Program. He holds a master's degree in public health from UCLA with a concentration in environmental health planning and management and a B.A. from Clark University.

JUDITH M. STAHL is a representative from the state of New Hampshire. See Legislator Biographies.

FRANK STEWART is with the U.S. Department of Energy (State Energy Conservation Grant Programs).

RICHARD J. STONE is director of DOE's Office of Intergovernmental Affairs. He serves as DOE's primary point of coordination and channel of communicaton with state, local, and American Indian governments. His principal responsibilities include the development of functional relationships to assist DOE in achieving overall national energy objectives and to provide guidance to the department concerning intergovernmental relations. Stone also provides day-to-day management oversight for DOE regional offices, and serves as chairman of DOE's Council for Intergovernmental Affairs. Stone has experience in the legal profession, and he served with he Department of Defense before joining DOE. He holds a B.A. degree in economics from the University of Chicago, and earned his J.D. degree from the U.C.L.A. School of Law.

JOSEPH STROHL is a state senator from Wisconsin. See Legislator Biographies.

ROBERT STROUP is executive director of the Energy Development Board in North Dakota. This board was created by the Department of Energy (DOE) in 1977 as a mechanism to manage community based energy development. The boards responsibilities include conducting rural experimental programs and working with local political sub-divisions on energy conservation programs. Stroup was a state senator from 1966-1976. He holds a bachelor's degree from Concordia College in Moorhead, Minnesota.

JAMES R. TANCK is chief of the Building Applications Incentives Branch in DOE's Office of Conservation and Solar Energy in Washington, D.C. He is also the director of DOE's Residential Conservation Service. The branch responsibilities include residential and business tax credits provided in the Energy Tax Act, the Residential Conservation Service as provided in Title II of the National Energy Conservation Policy Act, and implementation of other national residential programs of DOE. Tanck previously served as director of DOE's Office of Small Business. Prior to joining the Federal Energy Administration in February 1976, he served as principal associate of a major consulting firm. In this capacity he developed new business and directed over 20 projects in such diverse fields as health, education, transportation, energy, and housing. He holds a B.A. and M.A. from Michigan State University in marketing, economics, communications, and education.

DAN TONKOVICH is a senator from West Virginia. See Legislator Biographies.

JULIA UHLMAN is a research anthropologist in the Industrial Economic Division of the Denver Research Institute. She works in the area of growth management and human services delivery for rapidly growing communities. Before coming to DRI in June 1979, Uhlman served on the faculty at the University of Wyoming. She was the first project director of the Wyoming Human Services Project. In addition to various other publications, she authored a technical assistance publication for the Economic Development Administration: Providing Human Services in Energy Impacted Communities. Uhlman earned a Ph.D. in cultural anthropology from the University of Colorado at Boulder. She also works as a private consultant.

DALE VOLKER is a senator from the state of New York. See Legislator Biographies.

E. J. WASP is the vice president of Energy Transportation Systems, Inc. (ETSI) in San Francisco. He has also served as the manager of Slurry, Bechtes, Inc. He is a graduate of Cooper Union and New York State Universities with degrees in mathematics and engineering.

HERBERT WEINBLATT is a Project Director on the staff of Jack Faucett Associates, an economic consulting firm located in Chevy Chase, Maryland. Weinblatt has a Ph.D. from M.I.T. He has taught and done research on models of urban development at both M.I.T. and Brown University, and he has served as a special assistant for policy and program review for the Governor of Rhode Island. Much of Weinblatt's recent work has been in the area of economic and social impact analysis. He has managed studies of the community impacts of railroad abandonment, unit coal trains, and the federal airport and airways development program. For the past 18 months Weinblatt has provided the U.S. Department of Energy with advice and assistance related to energy-impact assistance legislation and programs, including the Section 601 Impact Assistance Program.

DAN WEDDERBURN is the program manager of Coal Transportation in the U.S. Department of Energy. He has worked on the federal energy programs with DOE and its predecessor agencies for 4-1/2 years and has eight years of federal government experience with various public policy issues. Mr. Wedderburn is a graduate of the University of Maryland and is currently working on a masters' degree in economics.

LARRY YOUNG is the president of the Maryland House of Delegates. See Legislators Biographies.

A 10 Point Program to Free New York

Gov Lamm: Coal as renewable resource
Good makes it as fast as the federal
govt allows it to be mined.
Nothing in our history prepares us for
today's problems.
=
Inventor owned utilities - ION's



We will not be prey to the whims and blackmail of foreign oil producers. This Ten Point Program will help New Yorkers regain control of their own destiny by dramatically reducing their dependence on foreign oil.

Hugh L. Carey, Governor
State of New York



This program requires us to reassert the essential American spirit of the pioneer. We can and must demonstrate that we possess the means, the will and the grit required to break the spell of OPEC.

John S. Dyson, Chairman
Power Authority of the State of New York

Program to Free New York

Goal: Cut New York's Present Foreign Oil Dependence in Half by 1990

Action	*Goal (% Foreign Oil Saved)*	*Time Frame*
Conservation	10-20	Immediate-10 yrs.
Coal Conversion	10-15	Immediate-5 yrs.
Canadian Energy	10-15	Immediate-10 yrs.
Arthur Kill/Other Coal Plants	7	7-10 yrs.
Gas Conversion	2-3	Immediate-5 yrs.
Hydropower	2-4	3-10 yrs.
Resource Recovery	2	4-8 yrs.
Prattsville	1*	7-8 yrs.
Alternative Technologies	2**	Immediate-10 yrs.
Buffalo Coal Port	0-2***	10 yrs.

* Saves less than 1% but significant impact on critical peak-hour loads.
** Percent savings could be much higher but difficult to determine exact timing.
*** Foreign oil savings dependent upon possible eventual completion of an associated coal plant.

Summary

Oil use in New York State is over 19 billion gallons a year. Of this, approximately two-thirds comes from foreign sources — over forty percent of all New York's energy use. This reliance imperils New York's future.

To reduce our exposure to ever-increasing prices and recurring shortages, we must act to reduce our reliance on imported oil.

The generation of electricity provides a particularly attractive means of reducing the amount of oil used in New York since this energy need not be generated by oil. In 1978, New York used 105.5 billion kilowatt hours of electric power, with 4 billion gallons of oil consumed to produce that. Ninety percent of this oil came from foreign sources.

Governor Hugh L. Carey has proposed a 10-point program to cut New York's foreign oil dependence by half.

Ongoing programs of the State Energy Office, the State Energy Research and Development Authority (NYSERDA), and the Public Service Commission will contribute to this effort. In addition, the State Power Authority will play a crucial and expanding development role in the effort to "Free New York" from foreign oil dependence.

Plan Elements

Plan elements include:

— conservation to save the equivalent of 10-20 percent of the amount of foreign oil now being used in New York.

— coal conversion to save 10-15 percent of present foreign oil use.

— at least a 10 percent equivalent saving through Canadian energy secured through the Power Authority.

— construction of coal and resource recovery facilities aimed at saving another 10 percent.

— gas conversion to save a possible 3 percent of such foreign oil.

— new hydro and other alternative technology projects to save as much as 4-6 percent of our present energy dependence.

Overall, the goal of cutting New York's foreign oil dependence could mean saving the equivalent of at least 180 days of the annual foreign oil supply upon which New York now relies. These 180 days of saved oil dependence assure New York's freedom to design its own destiny. In this sense, the 180 days assured by this program truly represent 180 days of freedom, for all New Yorkers, from the threat of foreign oil domination.

1. Conservation



- Quickest and cheapest way to save foreign oil
- Energy Master Plan projects potential savings equivalent to up to 2.5 billion gallons of oil
- State government agencies to set energy conservation example for rest of State
- Energy/Transportation bond issue helps meet transportation savings goal of up to 400 million gallons
- Proposed Power Authority program helps meet residential savings goal of up to 700 million gallons
- Consumer savings: At least $2 billion annually
- Creates immediate jobs in depressed construction industry

Saves 50 Days of Present Foreign Oil Use

The recent Report of the Energy Project at the Harvard Business School, *Energy Future*, as well as other authorities, have estimated that the United States could consume 30 percent less energy than it does now by making a total commitment to conservation.

Any doubts that may have lingered in the minds of Americans about the overriding importance of conservation have surely been dispelled in recent days, as the reality of our current dependence on foreign energy suppliers has once again been brought home to us. Conservation should be given the highest priority in New York's efforts to resolve its energy problems.

First, State government must recognize that conservation begins at home. In the recently-issued mid-year Budget Summary, a reduction of $30 million in projected energy expenditures for 1980-81 was called for which represents a reduction in energy consumption by State agencies of approximately ten percent. To do this, a series of measures designed to assure that this goal is achieved will be instituted immediately. The successful program of reductions in lighting in State buildings initiated by the Office of General Services will be expanded and intensified. Present restrictions on the use of State vehicles will be tightened and strictly enforced. Our program of energy audits of State facilities will be accelerated, with the objective of completing audits on all major facilities by April, 1980. Based on these audits, we will develop detailed plans for energy-saving capital improvements, to be undertaken during the 1980-81 fiscal year. Through these and other measures, we can assure that State government sets the example for prudent energy consumption.

Our actions must be equally vigorous in the area of transportation. New Yorkers can be proud that in the past five years we have done more to conserve energy in our transportation system than has any other State in the nation. Just this month our people signalled their support for improvement of that record by voting to approve our Energy Conservation Transportation Bond Issue. During the months ahead, further measures will be proposed to strengthen the operations and ensure the stability of mass transportation systems, and to further reduce consumption of gasoline.

Significant opportunities for conservation can also be found in the areas of residential, commercial and industrial energy consumption. For example, the State Energy Plan estimates that if all homes and commercial establishments in New York were properly insulated, savings would amount to at least 500 million gallons of oil per year. In January, we will again submit to the Legislature a series of proposals designed to take advantage of this opportunity. First, a program will be proposed to allow the Power Authority to promote and help finance energy conservation. A well-marketed program of low-interest conservation loans, combined with existing and proposed Federal conservation tax credits, would allow homeowners throughout the State to fully weatherize their houses. In addition, proposed legislation will include the establishment of maximum temperature standards for space heating and hot water in multi-family dwellings, and the establishment of operating standards for ventilation systems in both new and existing buildings. Further, Commerce Commissioner William Hassett has been asked to work with Energy Commissioner James Larocca and Power Authority Chairman John Dyson to develop measures to promote energy conservation among the State's businesses and industries.

A combination of better home, commercial and industrial energy usage and serious transportation conservation could save the equivalent of 2.5 billion gallons of oil annually, according to the State Energy Master Plan. While it might take a period of years to accomplish this, the potential energy and dollar savings are enormous.

2. Coal



- Energy Master Plan proposes 6 million kilowatts for conversion
- Completed by 1984
- As much as 1.7 billion gallons of oil saved
- Saves consumers $450 million annually

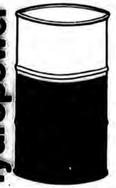
Saves 40 Days of Present Foreign Oil Use

The draft State Energy Plan, developed by the State Energy Office, recommends six million kilowatts now burning oil, be reconverted to burn coal, which could produce as much as 1.7 billion gallons of oil saved annually. Conversions could begin to take effect in 1980 and be completed by 1984. At least nine conversions, saving 170 million gallons of oil annually, could be converted immediately.

In order to help speed this conversion process, the Federal government should be urged to establish a one-stop coal conversion permit process. To help speed the New York State permit process, the Department of Environmental Conservation has been asked to explore ways to "fast-track" applications for coal conversions, in an attempt to render initial decisions within 90 days of application with referral to EPA within 120 days.

In addition, the order just signed by the Commissioner of Environmental Conservation, permitting Con Ed to test burn higher sulphur oil, as a surrogate for the equivalent grade of coal, will help prove the feasibility of the coal conversion program in New York.

3. Canadian Hydropower



- 765 kv line saves 700 million gallons of oil, with substantial savings for New York consumers
- Immediate goal: Double current level
- Longer-term goal: Again substantially increase use of Canadian Hydropower
- Eventual consumer savings: $400 million annually

Saves 40 Days of Present Foreign Oil Use

In its first year of operation, 6½ billion kwh were imported over the Power Authority's 765 kv line, resulting in a savings of 640 million gallons of oil and substantial savings for New York consumers.

These facilities can be used to import even more power. With additional facilities (including facilities to convert AC current to DC and enhanced transmission facilities to deliver power to the southeastern part of the State where oil use is highest), the amount of power imported from Quebec might double.

As a longer-term goal, New York will again attempt to substantially increase the use of Hydro Quebec power, possibly using a new regional transmission system which will include some transmission lines outside the State.

The Power Authority is also discussing with Ontario, Labrador and Newfoundland the possibility of obtaining power from them. By diversifying our Canadian imports, we avoid placing ourselves in jeopardy.

The Governor will submit legislation in January to insure the Power Authority's capacity to pursue this significant energy source.

4. Arthur Kill/Other Coal Plants



- 700 mw Arthur Kill Plant could be ready by 1987, saving 300 million gallons of oil per year
- Energy Plan projects two other 600 mw plants within 15 years
- Arthur Kill saves consumers $380 million annually

Saves 22 Days of Present Foreign Oil Use

The Power Authority's 700,000 kilowatt coal and refuse fired power plant at Arthur Kill could be ready for service by 1987, eliminating 300 million gallons of oil use per year and eventually providing New York consumers with annual savings of $380 million.

The draft State Energy Plan also calls for two new 600,000 kilowatt coal-fired plants within the next 15 years. Although site investigations and licensing procedures have not yet begun and could take five years, it would be possible to have the plants in operation by 1991, with each plant further reducing New York oil use by 280 million gallons annually.

5. Natural Gas

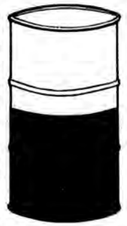


- 289 million gallons of oil from Astoria #6 conversion
- Astoria alone saves consumers over $30 million annually

Saves 8 Days of Present Foreign Oil Use

The supply of natural gas in the United States is now larger than required to supply residential and industrial customers, and there are prospects of additional gas supplies from Mexico and Canada. Although the State should not look to natural gas as a long-term substitute for oil in the production of electricity, gas could provide significant short-term relief from our dependence on oil. As an example, the Power Authority's Astoria #6 unit, which burns 289 million gallons of oil a year, can operate on natural gas since the unit is capable of dual firing. Expected savings would be tens of millions of dollars per year for Astoria alone at current prices.

6. Hydro Electric Power



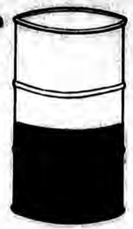
- Master Plan projects minimum small hydro development of 725 mw
- Total potential oil savings of 350 million gallons annually, saving consumers about $175 million
- Power Authority also exploring improvements in output of Niagara hydro project without hurting tourism

Saves 8 Days of Present Foreign Oil Use

The draft State Energy Plan projects minimum small hydro development of 725,000 kilowatts in New York during the next 15 years, which would save the equivalent of 350 million gallons of oil annually. NYSERDA has called attention to this potential through a series of feasibility and demonstration projects across the State, in cooperation with local and Federal governments, private business, utilities and other research organizations. The State Power Authority has also been urged to play a forceful role in accelerating the development of New York's small hydro potential, in concert with NYSERDA's ongoing program. The Power Authority is already exploring opportunities at four sites which alone would produce 20,000 kilowatts.

The Power Authority is also studying ways to improve the output of Niagara and St. Lawrence hydroelectric projects without detrimentally affecting tourism.

7. Resource Recovery



- Draft Energy Plan suggests at least 298 mw be developed, with potential for development of 590 mw over longer-term
- Power Authority has proposed at least 13 plants be built around the State by 1987
- Annual fuel savings estimated at 190 million gallons of oil, saving consumers $275 million, under Power Authority proposal

Saves 6 Days of Present Foreign Oil Use

New York City produces 18,000 tons of burnable garbage daily, and other cities throughout the State produce quantities related to their size. Disposal of this garbage is a major problem, as well as a major unused energy source.

Technology exists for converting garbage to energy and other resources. The draft Energy Master Plan projects at least 298 mw for development, with a longer-term potential for as much as 590 mw. Also, the State Power Authority recently suggested a series of small plants around the State — one in each borough of New York City and the rest distributed among several upstate counties. Power Authority estimates indicate these plants alone could save the equivalent of 190 million gallons of oil.

8. Prattsville

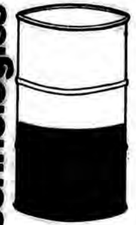


- Pumped storage facility uses power stored in off-peak hours to supply electricity during periods of peak demand
- Average annual savings of $92 million

Saves 2 Days of Present Foreign Oil Use

The Power Authority has applied to the Federal Energy Regulatory Commission for permission to construct a one million kilowatt pumped storage project at Prattsville. By using efficient off-peak generation to supply electricity during periods of peak demand, this project would reduce oil use in New York for electric generation by an average 75 million gallons a year. Since capacity of this type is ordinary thermal generation, it would result in average annual savings of over $90 million.

9. Alternative Technologies



- Technologies like wood, solar, co-generation and wind will contribute to reduced oil use
- Potential for North Country wood-based energy development
- Energy Master Plan proposed minimum oil savings of 250 million gallons from these sources by 1989, with much greater potential over long-term

Saves 6 Days of Present Foreign Oil Use

In the long run, the best cure for our current dependence on imported oil is a greatly increased reliance on renewable energy resources. The important role that can be played by hydroelectric power and resource recovery in the decade ahead has already been cited. We must also give increased emphasis to other emerging technologies that will allow us to tap new sources of energy and to use existing sources more efficiently.

Of particular importance to the North Country is that as much as 200,000 kw might be available from burning fuel processed from New York's forestry remains and wastes. The Power Authority and the State Energy Office are studying a 10,000 kw woodburning plant in the vicinity of Tupper Lake, and a number of other wood-power projects are being initiated by the State in its own institutions.

Biomass energy development is one of the subjects for study by NYSERDA in its research program on alternative and advanced energy technologies. The NYSERDA program also includes solar applications, new gas sources and wind energy, as well as an extensive research program in coal utilization, including fluidized bed combustion, gasification and liquefaction.

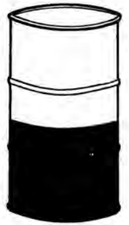
In the area of wind energy, the Power Authority is also seeking U.S. Department of Energy approval for study of sites for wind energy development. Demonstration wind turbine systems, ranging in size from 200 to 1,000 kw, could be installed to show the feasibility of this energy source.

Various research and pilot projects to directly use the sun's rays for energy, sponsored by NYSERDA and others, will continue to be pursued. The draft State Energy Plan projects that solar energy applications could produce the equivalent of 42 million gallons of oil annually.

Another alternative technology that holds great promise for the State is cogeneration. The draft State Energy Plan projects that cogeneration could make a significant contribution to meeting the State's future energy needs. The Energy Plan also suggests that the Power Authority study the feasibility of ownership and operation of cogeneration projects.

Overall, the draft State Energy Master Plan proposes minimum oil savings of 250 million gallons from these sources by 1989, with much greater potential over the longer-term.

10. Buffalo Coal Port



- Additional coal handling and storage facilities for transshipment of coal and to simulate Port of Buffalo development
- Possible associated coal plant, if necessary to replace other measures in energy development program

Consideration should be given to developing a coal port in Buffalo which could handle up to 15 million tons and storage capacity for five million tons. The additional coal handling and storage facilities would be available for the transshipment of coal to other plants in New York and New England and would stimulate redevelopment of the Port of Buffalo. It is also possible that an associated coal plant might be given future consideration if necessary to replace other measures in the energy development program.

To ensure that the potential for reducing our dependence on oil that these technologies offer can be fully realized, legislation will be submitted to remove existing institutional barriers to, and otherwise encourage construction of cogeneration and other alternative energy production facilities. Legislation will also be submitted to include active and passive solar, wind and wood systems as additional items eligible for utility audits and financing under the Home Insulation and Energy Conservation Act.

Energy Use



2/3's of New York's oil use from foreign sources (only half nationally)

43% of New York's total energy use from foreign oil (only 22% nationally)

- New York's total energy use equivalent to 30.5 billion gallons of oil annually
- 19.5 billion gallons of actual oil use
- 13 billion gallons of this oil from foreign sources

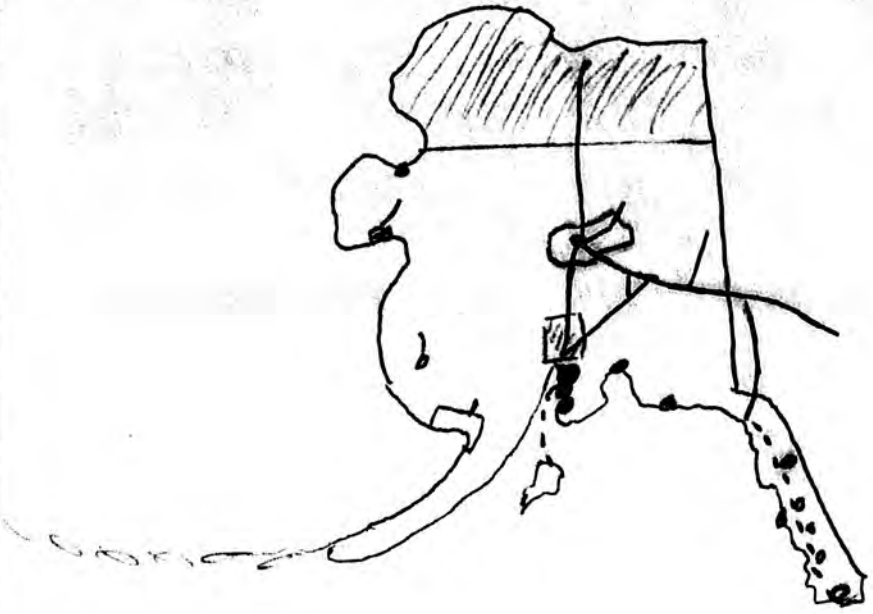
10 Points



	Days of Present Foreign Oil Saved
Conservation	50
Coal Conversion	40
Canadian Hydropower	40
Arthur Kill/Other Coal	22
Gas Conversion	8
Hydropower	8
Resource Recovery	6
Prattsville	2
Alternative Technologies	6
Buffalo Coal Port	

For further information, please write:

John Dyson
Program to Free New York
Power Authority of the State of New York
10 Columbus Circle
New York, New York 10019



local gov'ts with power to enact building codes

/ Roads ⋮ Ferries

NATIONAL LEGISLATIVE TOWN MEETING ON ENERGY

Brown Palace Hotel
Denver, Colorado
December 17-19, 1979

AGENDA

MONDAY, DECEMBER 17, 1979

11:00 a.m.- 6:00 p.m.	Registration Promenade (Top of the Escalator)
1:00 p.m.- 1:15 p.m.	State Legislatures and Energy: An Introduction Mr. James Arnold Executive Director LEGIS/50 - The Center for Legislative Improvement (Central City Room)
1:15 p.m.- 3:00 p.m.	Overview (Central City Room)

A briefing and review of issues and technical matters concerning energy and the role of the states.

WINDFALL PROFITS
House $277B
Senate $138B
Admin $300B
SENATE
$70B fuel grants
$15B Mass Transit
$22 conservation
$35B New pgms

1:15 - 1:45	Slide Presentation reviewing nation's energy situation Kevin Gorman Assistant to the Undersecretary of Energy U.S. Department of Energy
1:45 - 2:15	Briefing on legislation in Congress affecting the states Wolfgang Repke Assistant Director for Research & Analysis Office of Legislative Affairs U.S. Department of Energy Washington, D.C.
2:15 - 3:00	State Implementation of National Energy Program: Presentation by National Conference of State Legislatures (NCSL) Bill Ferguson Research Counsel NCSL

75% Tier 2 = $55B
BYRD comp:
10% MINIMUM on
NEW
20% Tentative
20% Expensing
= $23B TOTAL $180B

Hydro?
Passive Solar?

Rationing
Block grants
Energy Mobilization Bd. (one year)
Energy Security Corp

Conservation Bank
Solar Bank
Renewable
Geothermal
Coastal Energy

ESC: Synfuel
12-YR Corp. $20 billion begin
Defense Prod Act synfuel
300 empl. Max $3B
Loan guarantees

3:00 p.m.-
5:00 p.m.

Plenary Session
(Ballroom)

"Addressing the Energy Issue: Government's Role"

Moderator:

Mary O'Halloran
Regional Representative
of the Secretary
U.S. Department of Energy
Kansas City, Missouri

Panel:

The Honorable Hubert H. Humphrey, III
Minnesota State Senator

Mayor David H. Shepherd
City of Oak Park, Michigan
Member, Energy & Environment Committees,
U.S. Conference of Mayors,
National League of Cities

6:00 p.m.-
7:00 p.m.

Reception
(Ballroom Foyer)

7:00 p.m.-
8:00 p.m.

Dinner
(Ballroom)

8:00 p.m.-
9:00 p.m.

Address
The Honorable John Carlin
Governor of Kansas
(Ballroom)

TUESDAY, DECEMBER 18, 1979

7:45 a.m.-
9:00 a.m.

Breakfast
(Ballroom)

Speaker: John S. Dyson
Chairman
Power Authority of the
State of New York
"Energy Strategy for the 80's"

9:00 a.m.-
9:30 a.m.

Remarks
The Honorable Richard Lamm
Governor of Colorado
(Ballroom)

9:30 a.m.- Noon	Workshops (see attachment for topics and panelists)

Participants will meet in workshops to develop recommendations that will be submitted to the entire assembly of legislators on Wednesday. Each participant will sign up at registration for one workshop. Each workshop will last all day and will be conducted in the same manner as a legislative hearing.

Specific rooms for each workshop will be announced at Monday dinner and Tuesday breakfast, so the more popular programs can be placed in the larger rooms.

Brown Palace

Gold Room
Stratton Room
Tabor Room
Onyx Room
Cripple Creek Room
Central City Room
Coronet Room (3rd floor)

Trinity Methodist Church

Second Floor
1820 Broadway (right across from Brown Palace)
Room 203
Room 204

Noon- 1:00 p.m.	Lunch (Ballroom)
1:00 p.m.- 2:00 p.m.	Plenary Session (Ballroom) Speaker: Richard J. Stone, Director Office of Intergovernmental Affairs U.S. Department of Energy Washington, D.C.
2:00 p.m.- 5:00 p.m.	Workshops (Continued from A.M.)
5:00 p.m.- 5:45 p.m.	Reception (Ballroom Foyer)
5:45 p.m.- 6:30 p.m.	Dinner (Ballroom)
6:30 p.m. 7:00 p.m.	Speaker: George Fumich Assistant Secretary Designate for Fossil Energy U.S. Department of Energy Washington, D.C.

WORKSHOPS

On Tuesday, December 18, participants will meet in Workshops to develop recommendations that will be submitted to the entire assembly of legislators on Wednesday. Each participant will sign up at registration for one workshop. Each workshop will last all day and will be conducted in the same manner as a legislative hearing.

TOPICS

- Community Impact Management
- Utility Policy, Conservation and Emerging Technologies (Solar, etc.)
- State Energy Emergency Legislation
- Energy and the Economically Disadvantaged
- Licensing and Permitting
- Nuclear Waste Management
- Synthetic Fuels
- Transportation

Community Impact Management

Program:

The Honorable Dan Tonkovich
West Virginia State Senator

Gerald S. Leighton
Director
Community Systems Division
Office of the Assistant
Secretary for Conservation and
Solar Applications
U.S. Department of Energy
Washington, D.C.

Henri-Claude Bailly, Director
Resource Planning Associates, Inc.
Washington, D.C.

Robert Stroup
Executive Director
Energy Development Board
Mercer County, North Dakota

Dr. Julia Uhlman
Denver Research Institute
Denver, Colorado

Dr. Herbert Weinblatt
Project Director
Jack Faucett Associates
Chevy Chase, Maryland

Natalie Lobe
U.S. Department of Energy
Washington, D.C.

Utility Policy
Conservation and Emerging Technologies (Solar, etc.)

Program:

The Honorable William C. Edwards
Wyoming State Representative

Mr. Frank Stewart
Director,
Office of State & Local Programs
Office of Conservation & Solar Energy
U.S. Department of Energy
(State Energy Conservation
Grant Programs)

Susan Sickerman

Office of Conservation + Solar Energy

BEPS: All new construction in country. (no federal $)
unless: (1) design in compliance
(2) code in compliance
(3) construction magnitude doesn't justify

BEPS 20% tighter than current

officials to discuss performance codes

Code/Non code
60% non financed
Non code innovation
Mobile Homes (yes) not incl.
Price impact 2½-3% comml 5%

200,000 BBl/d
25
$40,000,000/ AK 800-424-9081

Henry G. Bartholomew
Chief of Emergency Programs
Office of Conservation and
Solar Energy
U.S. Department of Energy
Washington, D.C.

James R. Tanck
Chief of Building Applications
Incentives Branch
Office of Conservation and
Solar Energy
U.S. Department of Energy
Washington, D.C.

Kenneth M. Friedman
Acting Director
Policy Coordination and Support Division
Office of Conservation and
Solar Energy
U.S. Department of Energy
Washington, D.C.

Jeffrey A. Serfass
Deputy Director
Division of Regulatory Assistance
Office of Utility Programs
U.S. Department of Energy
Washington, D.C.

800 —

The Honorable Robert C. Scott
Virginia House of Delegates

Energy and the Economically Disadvantaged

Program:

The Honorable Larry Young
Maryland House of Delegates
President
Center for Urban Environmental
Studies
Washington, D.C.

Obra Kernodle, III
Regional Representative
of the Secretary
U.S. Department of Energy
Philadelphia, Pennsylvania

Harold Keohane
Regional Representative
of the Secretary
U.S. Department of Energy
Boston, Massachusetts

Eve Austin
Associate Director
Department of Social Services
Baltimore, Maryland

The Honorable Dennis E. Eckart
Ohio State Representative

Ed Freel
Community Services Administration
Washington, D.C.

Charles Ingram
Chairman of the Board
American Gas Association

Tony Maggiore
Director of Community Services
Administration
Milwaukee, Wisconsin

Dr. Gilbert Murphy
Executive Director
Seniors, Incorporated
Denver, Colorado

Alberta Slavin
Chairman
Missouri Public Service Commission

Frank Stewart
Director, Office of State &
Local Programs
Office of Conservation & Solar Energy
U.S. Department of Energy
Washington, D.C.

State Energy Emergency Legislation

Panelists:

The Honorable Alfred Alquist
California State Senator

Ronald Bedrick
Program Analyst
Energy Liaison Center
Economic Regulatory Administration
U.S. Department of Energy
Washington, D.C.

The Honorable William Hilsmeier
Colorado State Representative

The Honorable Dale Volker
New York State Senator

Joseph Alarid
General Counsel
New Mexico Energy and
Minerals Department

Transportation

Program:

The Honorable Joseph Strohl
Wisconsin State Senator

Mario Cardullo
Director, Divison of Energy
Transportation
Office of Resource Application
U.S. Department of Energy
Washington, D.C.

David Bramhall
Senior Economist
ABT Associates Inc.
Denver, Colorado

Isaac McCrary, Jr.
Transportation Planner
Office of Multi-Modal Planning
Minnesota Department of
Transportation

John Harmon
U.S. Department of Transportation
Washington, D.C.

E. J. Wasp
Vice President
ETSI (Energy Transportation
Systems, Inc.)
P.O. Box 7598
San Francisco, California

Dan Wedderburn
U.S. Department of Energy
Washington, D.C.

Licensing and Permitting

Program:

The Honorable Judith M. Stahl
New Hampshire State Representative

Charles G. Olentine
Representative of the Office
of Licensing and Siting
U.S. Department of Energy
Washington, D.C.

Gary Fisher
Project Manager
Colorado Department of
of Natural Resources
Denver, Colorado

William L. Cole
Vice President
Southern California Gas Company
Los Angeles, California

Abby Pirnie
Consultant
Policy Planning Division
Environmental Protection Agency
Washington, D.C.

Gerald R. Hill, Ph. D.
Director of Technology Programs
Southern States Energy Board
Atlanta, Georgia

Janine Landow-Esser
Deputy Assistant
General Counsel for Environment
U.S. Department of Energy
Washington, D.C.

W. Mitchell
Mayor
Crested Butte, Colorado

Todd Sostek
U.S. Department of Energy
Washington, D.C.

Nuclear Waste Management

The Honorable Paul Hess
Kansas State Senator

Keith A. Klein
Division of Waste Isolation
Office of Nuclear Waste Management
U.S. Department of Energy
Washington, D.C.

James E. Dieckhoner
Division of Waste Products
Office of Nuclear Waste Management
U.S. Department of Energy
Washington, D.C.

Richard Campbell
Remedial Actions Programs
Office of Nuclear Waste Management
U.S. Department of Energy
Washington, D.C.

Robert Browning
Deputy Director
Division of Waste Management
U.S. Nuclear Regulatory Commission
Washington, D.C.

William Harris
Staff Counsel
Atomic Industrial Forum
Washington, D.C.

Synthetic Fuels

Program:

The Honorable Kenneth Buzbee
Illinois State Senator

Dr. James T. Bartis
Acting Director
Office of Plans and
Technology Assessment
U.S. Department of Energy
Washington, D.C.

Peter W. House
Director
Office of Technology Impacts
Office of Environment
Department of Energy
Washington, D.C

Paul A. Petzrick
Resource Manager
Oil Shale
Office of Resource Applications
Department of Energy
Washington, D.C.

John Hopkins
President
Energy Mining Division
Union Oil Company

Walter Hecox
Project Director
Colorado Energy Resources
Development

Dana Lee
Director
Government and Nuclear Sales
Fluor Corporation

Edsel Boe
Manager
Facilities Planning
A.N.G. Coal Gasification Company

Dr. James H. Weber
Assistant Director
Research and Development
Department of Energy
Laramie Energy Technology Center
Laramie, Wyoming

LEGIS/50
Center for Legislative Improvement

NATIONAL LEGISLATIVE TOWN MEETING ON ENERGY

Brown Palace Hotel

Denver, Colorado

December 17-19, 1979

LEGISLATORS

JOHN A. AINLEY is a Republican state representative in the Minnesota Legislature. He serves on the Energy and Utilities, Education, and Commerce and Economic Development committees. Ainley, a businessman, received a B.S. in mass communications from the Bemidji State University.

ALFRED E. ALQUIST is a California state senator. He was elected to the Senate in 1966 after having served two terms in the Assembly. He was reelected in 1968, 72 and 76. In 1970 he was the Democratic nominee for lieutenant governor of California. Alquist is chairman of the Senate Committee on Energy and Public Utilities and a member of the committees on Finance, Governmental Organization, and Education. In addition he serves on the Commission on California State Organization and Economy, and the State Seismic Safety Commission. He is also a member of the NCSL Committee on Science and Technology. Alquist was a pioneer in efforts to promote energy conservation and development of new power sources, including nuclear, solar and geothermal. He attended Southwestern University.

JOHN H. ARNOLD is the Republican minority whip in the Delaware Senate. He had served for four years in the House before becoming a senator in 1976. Arnold is a member of the Executive, Energy, and Revenue and Taxation committees. By profession he is chief switchman with Diamond State Telephone Company.

WILLIAM A. BABLITCH -- Since 1976 State Senator Bablitch has been the Democratic majority leader of the Wisconsin Senate. Previous to being elected to the Senate he served as Portage County District Attorney. Presently, Bablitch serves on the Executive Committee of the NCSL. During his tenure in the Senate, he has authored such major legislation as Wisconsin's Child Abuse Reporting Law and Sexual Assault laws of 1976. He received his J.D. from the University of Wisconsin Law School in 1968.

POLLY BACA-BARRAGAN is serving her fifth year as a Democratic state senator in the Colorado Legislature. She is regional coordinator for the Rocky Mountain States, Carter/Mondale Presidential Committee, Inc. and Commissioner for the President's Commission on the Rights and Responsibilities of Women, HEW. Barragan graduated from Colorado State University with a B.A. degree in Political Science and Education and attended American University. She is a public relations consultant.

GERALD L. BALILES is a Democratic delegate in the General Assembly of Virginia, where he has served since 1976. He is a member of various organizations including the Governor's Task Force on Environmental Management, Legal Advisory Committee of the Southern Interstate Nuclear Board and the special committee studying procedures under Virginia water and air laws. In 1977, he was appointed to the National Conference of State Legislatures Select Committee on Energy -- purpose of the committee of 80 legislators is to work with congressional committees and the Carter administration on energy matters. Baliles has a LL.B. degree from the University of Virginia Law School and a B.A. in government from Wesleyan University.

KAREN McCARTHY BENSON, a Democrat, was elected to the Kansas House of Representatives in 1976 and again in 1978. She is vice chairperson of the Energy Committee and a member of Appropriations, Consumer Protection and Ethics. In the past her committee assignments included Atomic Energy and Industrial Development. An educator, she graduated from the University of Kansas and received an M.A. in English education from the University of Missouri in Kansas City. Benson is interested in energy and environmental issues. She successfully sponsored a bill designating solar energy rights for

Missouri residents and hopes to be successful with an omnibus renewable resource act.

GORDON BERG, a Democrat, is serving his second term as a state representative in the North Dakota House. He is a member of the committees on Finance and Taxation, Natural Resources, and Budget Appropriations. Berg is interested in coal and oil development and land reclamation in coal development. He is a farmer and businessman.

CHRIS BEUTLER is a Democratic state senator in the Nebraska Legislature. He serves on the Public Works, Education, and Rules committees and is also interested in water, public power and the legislative process. Beutler, an attorney, is a graduate of Yale University and the University of Nebraska, College of Law.

WILLIAM L. BEVERS is serving his first term in the Indiana House. A Democrat, he is a member of the Agriculture Committee, the Public Health and Environmental Affairs Committee, and the Interim Study Committee on Energy Policy. Bevers is interested in energy policy, mass transportation and health related issues. A pharmacist with a degree from Purdue University, he serves on the Board of Directors of Seymour Chamber of Commerce.

DONALD J. BLANDFORD is a Democratic state representative in the Kentucky Legislature. He has served there since 1968. Blandford chairs the Southern Legislative Conference Sub-Committee on Coal and Lignite, the Kentucky House Agriculture and Natural Resources Committee, and the Kentucky House Sub-Committee on Energy. He is also a member of the Kentucky Tobacco Research Board, the Kentucky Rural Development Committee, and the Kentucky House Public Utilities and Transportation Committee.

BELDEN G. BLY, JR. has been a Massachusetts state representative for 32 years. He is the ranking Republican in the Massachusetts Legislature. Bly serves on the House Ways and Means Committee, is permanent chairman of the Republican Caucus and a member of the NCSL Committee on Energy. He holds A.B., L.L.B., Ed. M., and J.D. degrees.

JASON BOE, a Democrat, is serving his fourth consecutive term as president of the Oregon Senate. He has served three terms in the House and five terms in the Senate. He is a member of the Emergency Board and is interested in property tax relief, school finance and energy issues. Boe is immediate past president of NCSL and a current member of ACIR. He holds an optometry degree from the Pacific University, Oregon and is an optometrist by profession.

AUGUST BOGINA, JR., a Republican, is serving his third term as a member of the Kansas House of Representatives. He is chairman of the Joint Committee on State Buildings. Bogina is president of the Lenexa Chamber of Commerce. He has a B.S. in engineering from Kansas State University.

PAUL BOLSTER is serving his third term as a Democrati representative in the Georgia General Assembly. His committee assignments include Ways and Means, University, State Planning and Community Affairs, and the Energy Resources Joint Study Committee. Bolster is interested in energy, economic redevelopment, tax policy, and pensions. A college teacher with a Ph.D. from the University of Georgia, he has published in the field of American history. Bolster was named Legislator of the Year-1979 by the Atlanta-Fultan League of Women of Voters.

R. M. DICK BOND has served as a Republican state representative in the Washington Legislature for six years. He chairs the Energy and Utilities Committee and serves on the Revenue and Rules committees. In the past he has been a member of the Transportation and Natural Resources committees. Bond is president of the Solar Gas Company and past president of the Association of Engineers of Spokane. He has an MBA and attended Cal. Tech., U.S. Berkeley and USC.

DAVID E. BOSWELL is a Democratic state representative in the Commonwealth of Kentucky. His committee assignments include Public Utilities and Transportation, Agriculture and Natural Resources, Business Organizations and Professions. Boswell is interested in agriculture, energy and consumer protection. A public relations manager by profession, he is a graduate of the University of Kentucky.

FREDERICK C. BOUCHER is a Democratic senator in the Virginia Legislature where he has served since 1975. He is a member of the following committees: Courts of Justice; Agriculture, Conservation and Natural Resources; and Transportation. Boucher is a member of the Virginia Coal and Energy Commission. He represents a coal producing part of Virginia and is interested in energy and environmental legislation. As an attorney at law, with a J.D. from the University of Virginia Law School, Boucher is also interested in matters affecting criminal law enforcement.

THOMAS E. BRADY, JR., a Republican, represents the sixth district in the Delaware General Assembly. He has been a legislator since 1975. Brady serves on the Judiciary, Corrections, and Banking and Insurance committees. He is a member of the State Health Coordinating Council, the Task Force chairman of the State Health Plan Development Committee and serves on the planning commission for a new state multi purpose judicial corrections facility. Brady was the prime sponsor of a 1978 bill providing a tax credit for solar hot water installations. He co-sponsored legislation establishing a State Energy Office. Brady has a B.S. in economics from Villanova University and an M.B.A. from the State University of New York at Buffalo. He is a product specialist for the DuPont Company.

MARGARET BRANSON is the Republican minority whip in the Alaska House. She chairs the Sub-Committee on Alternate Energy (geothermal/solar) and serves on the Community and Regional Affairs, Labor and Management committees and on the following interim committees: Agriculture Policy Study, Limited Entry Study, and Small Scale Hydro-Geothermal/Solar committees. She is interested in local government & small scale hydro development, energy from alternate sources - solar (photovotaics), wind and geothermal.

E. "BUTCH" BRYAN, a Democrat, is serving his third two-year term in the West Virginia House of Delegates. He co-chairs the Coal Mining Committee and is a member of the committees on the Judiciary, Banking and Insurance, Agriculture and Natural Resources, and Legislative Rule Making. Bryan is interested in energy problems, rules and regulations. He graduated from Alderson-Broaddus College in West Virginia.

L.L. (DOC) BRYAN, a Democrat, serves as a representative in the Arkansas General Assembly.

PERRY BULLARD has been a Michigan state representative since 1973. A Democrat, he chairs the Labor Committee and serves on the Judiciary, Taxation,

and Civil Rights committees. He sponsored a successful bill that gives tax credits for solar and wind energy devices and has numerous other energy proposals pending. Bullard has a B.A. from Harvard University and a J.D. from the University of Michigan Law School.

KERMIT O. BURROUS is speaker of the Indiana House of Representatives. He has been a Republican member of the Indiana Legislature from 1961 to 1964 and from 1967 to the present. He was elected speaker in 1973, 1977 and 1979. From 1975-76 he served as minority leader. Burrous attended Ball State University and Indiana University at the Indianapolis School of Law. He is a farm owner, manager and operator.

CHARLES BUTTS is serving his second four-year term as a Democratic senator in the Ohio Legislature. He chairs the Senate Elections, Financial Institutions and Insurance Committee and the Joint House and Senate Public Inspection (over-sight) Committee. He also serves on the Ohio Constitution Revision Commission and is a member of Ways and Means, Energy and Public Utilities and Rules committees. Butts' major legislative interests concern urban tools for dealing with housing code enforcement, crimes against the elderly, and arson. Butts holds a B.A. degree from Oberlin College.

KENNETH V. BUZBEE has served seven years as a Democratic state senator in the Illinois General Assembly. Buzbee chairs Appropriations II, and the Energy Resources Commission. He is a member of Appropriations I, Higher Education Committee and the Argiculture, Conservation and Energy Committee. He has a B.S. in radio-television and government, and a M.A. in political science.

THOMAS H. BYRNES, JR. is a Democrat, serving his second year representing the 91st district of Rhode Island. Byrnes is a member of the Health Education and Welfare Committee, Council of State Governments, Sub-committee on Bi-lingual Education, and the Eastern Regional Conference on Energy Committee. He is a real estate broker.

GUIDO G. CANULLA is a Democratic senator in the Rhode Island Legislature.

BENJAMIN L. CARDIN, a Democrat, is speaker of the Maryland House of Delegates to which he was first elected in 1965. Cardin is co-chairman of the Legislative Policy Committee and serves also on the Governor's Commission on Revision of Domestic Relations Law, the State House Trust, the Committee to Revise the Annotated Code of Maryland, and the Joint Budget and Audit Committee. He is a graduate of the University of Pittsburg and holds a law degree from the University of Maryland. Cardin has been a practicing attorney in Baltimore since 1967 and has authored articles on tax reform. He is the recipient of numerous academic and civic awards.

ALLEN R. CARTER is a South Carolina state senator. A Democrat, he is a member of the Fish, Game, and Forestry Committee, chairman of the Joint Legislative Committee on Energy; vice-chairman of the Joint Appropriations Review Committee and chairman of the Education, Health and Welfare Sub-committee. Carter is a real estate broker.

DOMINIQUE CASAVANT, a Democratic representative, has served in the Vermont Legislature for two years. He is a member of the Commerce Committee and of the Joint Energy Committee. Casavant has proposed bills to mandate performance standards for housing, for co-generation utilities, for solar rights, for tax exemptions for alternative energy emplacements, for urban

reforestation, for cycling lanes on highways, for restricting use of resistive space heating in residential housing, for eliminating pilot lights in gas appliances. His major effort has been in the area of conservation. He is committed to the need for greatly changing the level of energy demand. A college teacher with a Ph.D. from the University of Vermont, his publications include his co-authorship of "Conservation in the Industrial Sector by Unit Process." Institute for Energy Analysis Publication, Oak Ridge, Tennessee. Casavant has been a city council member, mayor, chairman of Model Cities Committee, member of Winooski Development Corporation and a staff member of the Institute for Energy Analysis (1978-79).

JAMES CLARK, JR. is the president of the Senate of Maryland. A Democrat, he was elected to the Maryland House of Delegates in 1958 and won his senatorial seat in 1962. He was chairman of the Legislative Council's Special Subcommittee on Open Spaces and Recreational Areas in 1968 and helped draft a statewide plan to protect Maryland's open spaces and natural resources. Prior to becoming Senate president in January 1979, he served as chairman of the Finance Committee for four years and on the Pension Study Committee for two years. Clark has won awards from the Maryland Legislative Correspondents Association, the NAACP and the Maryland Association of Retarded Citizens. He graduated from the Iowa State University with a BS in animal husbandry.

STEVE COULTER is a Democrat, and assemblyman in the Nevada Legislature. He is chairman of the Environment and Public Resources Committee and a member of the Judiciary and Taxation committees. Coulter has served three terms.

VEARL C. CRYSTAL is serving his third term as a Republican senator in the Idaho Legislature. He is a member of the Agricultural Affairs, Local Government and Taxation, and Health, Education and Welfare committees. His major legislative interests are taxes, energy and local control. He has been the Jefferson County assessor for thirty years. Crystal is a rancher.

PHILLIP B. CURLS is a Democratic representative in the Missouri Legislature. He was first elected in 1971. Curls chairs the Municipal Corporations Committee and serves on the Commerce, Appropriations, and Interstate Cooperation committees. He is interested in social welfare and urban environmental issues. Curls is a a real estate broker and appraiser with a B.S.B.A. in accounting.

BILL CURRY is a Democratic senator in the Connecticut State Legislature. Curry is chairman of the Program, Review, and Investigations Committee. He is a member of the Energy and Public Utilities, Labor and Public Employees and Judiciary committees. Curry received a B.A. from Georgetown University in 1974 and a J.D. from the University of Connecticut Law School in 1977.

H. WILLIAM DE WEESE, a Democrat, has been a Pennsylvania state representative for four years. He serves on the Mines and Energy Management and the Military and Veterans Affairs committees. De Weese represents a coal mining district, and his major legislative interests are energy and coal. A former military officer, he is a graduate of Wake Forest University in North Carolina.

FRANK "PAT" DODD is Democratic chairman of the Energy and Environment Committee for the New Jersey State Senate. Dodd was president of the New Jersey Senate in 1974-1975 and acting governor 1974-1975. He is responsible for legislation to create a Department of Energy in New Jersey. Dodd is president of his own business.

HAROLD L. DOVER, a Republican, has served four years in the Montana State Senate. He is the chairman of Bills and Journal and the vice-chairman of the Natural Resources committees. He also serves on the Business and Industry, and Labor and Management committees. Dover is a member of the Montana Governor's Alternate Fuels Commission. He is president of the Lewistown Rotary, the Central Montana Chamber of Commerce and the Dover Construction Company.

MIKE DMITRICH is serving his sixth term as a Democratic representative in the Utah House. He was assistant minority whip in 1975 and chairman of two committees. He is now a member of the State Energy Conservation and Development Council, Higher Education Appropriations and Labor and Manpower Development. His major legislative interests are in energy and education.

DANIEL D. DRAPER JR., a Democrat, is the speaker of the Oklahoma House of Representatives and an ex officio voting member of all standing and special committees. An attorney, with an LL.B. from the George Washington University, he has served in the Oklahoma Legislature for the past nine years. Speaker Draper is listed in Who's Who in American Colleges and Universities and in Outstanding Young Men of America. He is the director of the Stillwater, Oklahoma, Chamber of Commerce and past chairman of Constitutional Revision and Regulatory Services of the Oklahoma House (1975-78). His legislative interests are in the fields of education and energy.

CONRAD R. DUNCAN serves as a Democratic senator in the North Carolina General Assembly. He chairs the Senate Wildlife Committee.

JIM DUNN is a Republican state senator in South Dakota. He has served eight years in the Senate and two years in the House. Dunn serves on State Affairs, and Agriculture and Natural Resources. He is interested in the development of natural resources and in water rights and law. Dunn has a B.S. degree in business administration and economics. He is the author of Homestake Centennial Book 1976, a history of the Creede, Colorado silver mine.

THOMAS W. EDWARDS, JR. has served in the South Carolina House of Representatives for twelve years. A Democrat, he is first vice chairman of the Ways and Means Committee on Energy and a member of various other committees. He is a businessman, real estate broker and farmer.

WILLIAM C. EDWARDS is a college professor from Wyoming. A Democrat, he currently is in his fifth year as a representative in the Wyoming State Legislature. He is a member of the Education and Travel, Recreation and Wildlife committees. Edwards is chairman of the State Energy Conservation Committee and serving on the Energy Extension Service Advisory Committee of the Department of Energy.

R. H. EISENGREIN is a Democratic legislator in the New Hampshire House of Representatives. He is chairman of the Subcommittee on Nuclear Radiation as well as a member of the Science and Technology Committee. He is also a member of the Governor's Task Force on Programs for the Developmentally Impaired. Eisengrein is manager of the marketing systems for Kinsburg Machine Tool Company.

EDWARD N. FADELEY, a Democrat, has served in the Oregon State Senate for 19 years. He is the majority whip and chairs the Environment and Energy Committee. Fadeley also serves on the Ways and Means, Judiciary, Human

Resources and Education committees. He is interested in the development, conservation and financing of energy, and in the financing and policy of alternative energy sources. Fadeley sponsored a measure to bond-finance local small scale renewable energy projects which will be voted on in the Oregon primary in May 1980. Fadeley is an attorney with a J.D. from the University of Oregon and chairs the NCSL Law and Justice Committee.

NANCY FADELEY is a Democratic state representative in the Oregon Legislature. She was first elected in 1972 and has chaired the House Environment and Energy Committee since 1973. Fadeley also serves on the Intergovernmental Affairs and Legislative Oversight committees. She is the principal sponsor of Oregon's gasohol legislation. Fadeley is the author of a book, Mission to Oregon, and of numerous articles on Oregon politics and history. She graduated from Central Methodist College and received an M.A. from the University of Oregon.

GEORGE ROBERT (BOB) FERGUSON has served as a Democratic representative in the Mississippi House since 1968. He chairs the Public Utilities Committee and is a member of the Appropriations, Judiciary, Apportionment and Elections, and Agriculture committees. An attorney, he received his B.S. from Mississippi State University and his law degree from the Jackson School of Law.

R. MICHAEL FERRALL has served as Wisconsin state representative since 1970. He is a member of the Assembly Committee on Energy, the Energy Task Force of the Midwestern Conference of the Council of State Governments, and is involved in many other organizations and committees. Ferrall has taught in two Wisconsin high schools. He has a B.A. and M.A. in political science and has attended Wisconsin State University, University of California and University of Wisconsin.

JACK F. FIELDING is a Democratic state assemblyman in the Nevada Legislature. He chairs the Interim Sub-Committee on Transportation and Disposal of Radioactive Material and serves on the Sub-Committee on Private Care Providers. He has also been vice chairman of the Environment and Public Resources Committee. From 1973-76 Fielding was a justice of the peace for Pahrump Township, Nye County, Nevada. He is a senior engineering technican working in electronics.

STEVE FOWLER is a Democratic state senator in the Nebraska Legislature. He is a member of the Appropriations, Rules and Telecommunications committees. First elected in 1972 and reelected in 1976, Fowler also works as a consultant.

MARZ GARCIA represents the 10th senate district in the California Legislature. His committee assignments are Revenue and Taxation (vice chairman), Energy and Public Utilities, Public Employees and Retirement, the Joint Legislative Budget Committee, and the Select Committee on Small Business Enterprises. Garcia received a masters degree in economics from the Ohio State University and a J.D. from Hastings College of Law. He also holds a Master of Laws in Taxation from New York University.

JOHN M. GARR is a Democratic representative in the Utah Legislature. He is the assistant minority whip.

ROBERT D. GARTON is a senator from Indiana. A Republican, he is in his ninth year as a state legislator. He is a member of the Senate Finance and Judiciary committees and chairman of the Energy Committee. Garton has a B.S. from Iowa State and a M.S. from Cornell. He is a self-employed consultant.

LLOYD R. GEORGE, a Democrat, serves in the Arkansas House of Representatives.

HAROLD E. GERKE, a Democrat, has been speaker of the Montana House of Representatives for three terms. He has served in the Montana Legislature for 16 years. Gerke is a member of the Legislative Audit, Legislative Improvement, Branch Banking, Judicial Reform and other committees. He is particularly interested in fiscal policy relating to energy production and conservation. Before becoming a legislator, Gerke served three terms on the Billings City Council and one term as mayor.

JACK L. GINGRASS, a Democrat, has served ten years in the Michigan House of Representatives, where he is currently treasurer. Gingrass is a member of the Consumers Public Utilities and Conservation, Recreation and Environment committees. He attended Northern Michigan University.

RYAN DE GRAFFENRIED, JR. is a Democratic senator in the Alabama Legislature.

JIM HARTDEGEN has served three and one-half years in the Arizona State Legislature. A Rebublican, he is vice chairman of the Natural Resources and Energy Committee and a member of the Agriculture, Commerce, and Environmental Affairs committees. He is involved in the Special Interim House Committee on Atomic Energy and the Arizona Ground Water Management Study Commission. Hartdegen is Safety Inspector for the U.S. Copper Mine.

MARTIN HATCHER is a Colorado state senator. A Democrat, he was first elected in 1974. He chairs the Audit Committee and is a member of Agriculture, Natural Resources and Energy, Transportation, and Business Affairs and Labor committees. Hatcher is interested in energy impact and development, in water, and in natural resources. A professor with a Ph.D. in speech and theatre from the University of Denver, he has published articles on Colorado history and the arts.

EMERY E. HEDLUND has been a Democratic legislator in the Idaho House of Representatives for 20 years. He serves on the House Appropriations, and Resources and Conservation committees. His major legislative interests are in resources and conservation. Hedlund is the owner of a hardware business.

OLEN HENDRIX has served in the Arkansas Senate since 1958. A Democratic, he is chairman of the Senate Committee on Insurance and Commerce. He also serves on the Senate Committee on Revenue and Taxation, the Committee on Committees, the Efficiency Committee, the Energy Committee, the Joint Budget Committee, and the Arkansas Legislative Council. Hendrix is president of a bank and is a farmer who owns extensive holdings in timber lands.

R. LARS HERSETH, the minority leader in the South Dakota House, has been a legislator for six years. He serves on the Taxation and State Affairs committees and has been a member of the committees on Transportation, Agriculture and Natural Resources. Herseth is interested in taxation, natural resources, energy and railroad transportation. He is the state director for S.D.Q.H.R.A. Herseth graduated from the University of South Dakota.

PAUL HESS is a Republican senator in the Kansas Legislature. He was first elected in 1972 and re-elected in 1976. He serves on the Energy and Judiciary committees. He is vice chairman of Appropriations and chairs Commercial and Financial Institutions. Hess is also chairman of the NCSL Energy Committee, 1978-80. Hess is interested in energy and appropriations. He is a practicing

attorney with a J.D. degree from the University of Kansas. Hess has traveled extensively (to more than 30 countries), both as a legislator and a private citizen. He has written several magazine articles for the NCSL monthly publication.

WILLIAM F. HILSMEIER is serving his third term as a Republican representative in the Colorado House. He chairs the House Transportation and Energy Committee and is a member of the Health, Environment, Welfare and Institutions Committee. Hilsmeier has sponsored legislation dealing with energy conservation, air pollution, education, tax reduction, welfare reform and traffic laws. Between sessions of the General Assembly he organized and chaired Colorado's First Energy Symposium. From 1966 to 1971 Hilsmeier was a scientific administrator for NOAA having worked six years in Oak Ridge, Tennessee as a research meteorologist. Prior to that he served four years as a weather forecaster for the U.S. Air Force. Hilsmeier is now an insurance agent for the MFA Insurance Companies.

CAL HOBSON is a Democratic state representative in the Oklahoma Legislature. He is vice chairman of the Public Utility Regulation Committee and serves on the Appropriations and Budget, Environment and Natural Resources, and Public Safety and Penal Affairs committees. His primary legislative interests are energy, budget and tax issues. Hobson received a B.A. from the University of Oklahoma.

BARBARA HOLME was elected to the Colorado State Senate in 1974 and re-elected in 1976. From 1976 to 1978 she was Senate Democratic Caucus chairman, and since 1978 she has been the Senate Democratic assistant leader (whip). Holme is a member of the Senate committees on Finance, on Health, Environment, Welfare and Institutions, and Appropriations. Her main legislative interests include: tax reform, preservation of Denver as a good place to live, housing, regulation of public utilities, energy conservation, and air pollution. She is the author and prime senate sponsor of SB 416, enacted by the 1975 session, which encourages lenders to make mortgages and home improvement loans in older neighborhoods. Holme was appointed by the Governor to the Highway Legislative Review Committee in 1978. She was one of 50 women chosen from across the country to attend the Washington Institute for Women in Politics, May 1978, and she received a citation for outstanding service by the Colorado Social Legislation Committee 1978. Holme holds a B.A. from Stanford University.

DAVIS S. HOLMES, JR. represents the fourth senate district in the Michigan legislature. He served in the Michigan House from 1959 to 1974 and has been in the Senate since March, 1974. Holmes is chairman of the Michigan Democratic Black Caucus and was a delegate to the 1974 Democratic Charter Conference. He serves on the following committees: Appropriations, Subcommittee on Public Health, Subcommittee on General Government, Capital Outlay, Senate Democratic Caucus, and Highways and Transportation. Holmes attended Virginia State College and did graduate work at the University of Michigan. He is employed as an UAW-AFL-CIO aide.

ROLLIN K. HOWELL has served as a state representative in the Iowa House since 1973. He is the Floyd County Democratic Party chairperson and the ranking minority member of the House Energy Committee. Howell also serves on the Ways and Means, County Government, Natural Resources, Budget, and Ethics committees. His major legislative interests include solar energy access and incentives, gasohol development and promotion, home insulation and weatherization. Howell is a farmer.

SHERRY F. HUBER has served two years as a Republican state representative with the Maine Legislature. She is a member of the Energy and Natural Resources and Audit and Program Review committees. Huber is currently serving on the New England Energy Congress Implementation Committee. In 1978-79 she served as a delegate to the New England Energy Congress.

HERB HUENNEKENS is a member of the Montana House of Representatives. A Democrat, Huennekens chairs the Taxation Committee. He is a member of the Natural Resources, Rules and the Joint Revenue Oversight committees. His legislative interests include energy, utility plant siting, strip mine reclamation, air and water pollution and land use planning. Huennekens is a retired meteorologist, hydrologist and rancher. He graduated from the University of Wisconsin.

HUBERT H. HUMPHREY, III is a Democratic senator in the Minnesota Legislature. He was first elected in 1972 for a four-year term and re-elected in 1976. Humphrey is a member of the Education Committee and the Senate Education Subcommittee on School Finance, and the Subcommittee on Special Education/Special Needs. He serves on Energy and Housing and chairs the Energy Subcommittee. He is a member of the Finance Committee and chairman of State Departments Subcommittee. Humphrey also chairs the Minnesota Interstate Cooperation Commission, Council of State Governments, and the Senate Hennepin County Delegation. His recently sponsored bills include: 1. energy, pollution, solar energy, equipment quality standards and performance disclosure, 2. residential housing rehabilitation, HFA loans and grants, and 3. the Energy Conservation Act of 1976. An attorney with nine years active practice of law, he is a graduate of American University in Washington D.C. (B.A. in political science) and of the University of Minnesota Law School (J.D.).

LAURENCE E. JACOBSEN is a Republican state senator in the Nevada Legislature. He was assemblyman for 16 years, and former speaker of the Assembly. Jacobsen chairs the Legislative Commission and is a member of the Finance, Transportation and Natural Resources committees. He is a petroleum distributor for the Union Oil Company of California.

GENE JOHNS is serving his fourth term in the Illinois Senate. He is chairman of the Democratic Caucus, the Committee on Committees and the Rules Committee. Johns is a member of the Executive, Executive Appointments, Appropriations I and II committees and vice chairman of the Higher Education Committee. He chairs the Model School for the Deaf and Hard of Hearing Study Commission and serves on various other commissions including Economic Development, Energy Resources and the Special Joint Committee on Environment. Johns is a graduate of the Southern Illinois University where he majored in government. As administrator of the Department of Business and Economic Development in Herrin, he directed the development of the first two economic development districts in Illinois. Johns owns a petroleum distributorship and is a licensed real estate broker.

ANNE JUST has served two terms in the Vermont House of Representatives. A Democrat, Just serves on the Joint Energy and Commerce committees. Her legislative interests include energy and land use.

TED KAPLAN is a second term Democratic representative in the North Carolina General Assembly. He is chairman of the State Properties Committee and vice chairman of Natural and Economic Resources. Kaplan is a member of Alcoholic

Beverage Control, Appropriations, Constitutional Amendments and Mental Health committees. He attended Guilford College.

JOHN F. KELLY is minority whip of the Michigan State Senate. A Democrat, Kelly has been a senator since 1978. He chairs the Corporations and Economic Development, Juvenile Services and Commercialization of Hydro Power committees. Kelly received his A.B. degree in education from the University of Michigan and his master's degree in public administration from Wayne State University.

VERNON N. KERR has been a New Mexico state representative since 1971. A Republican, he serves on the Appropriations and Finance Committee and is subcommittee chairman for Health and Environment. He is also a member of the committees on Printing and Supplies, Energy and Natural Resources, and Radioactive Waste Consultation. Kerr holds B.A. and M.S. degrees in organic chemistry from New Mexico Highlands University and is a staff member of the Los Alamos Scientific Laboratory. He has several scientific publications to his credit, plus newspaper articles on radioactive waste disposal in the WIPP site and an article on New Mexico's Solar Rights Law. Among his civic activities he lists the steering committee of New Mexicans for Jobs and Energy.

HARRIET KEYSERLING has served as a Democratic representative in the South Carolina Legislature since January 1977. She is a member of the House Judiciary and the Joint Legislative Energy committees. She chairs the Conservation Subcommittee. Keyserling serves on the NCSL Task Force on the Arts, the NCSL Executive Committee, and the OTA Panel on Nuclear Waste. She has a B.A. degree from Barnard College with a major in economics.

MARY N. KILMARX, a Democrat, has served three terms in the Rhode Island House. She chairs the Joint Committee on Environment and is a member of the Corporations Committee. Kilmarx formerly served on the governor's Task Force on Land Management, the governor's Sewage Facility Task Force, the Energy Facility Task Force, the Energy Facility Siting Commission, and the Consumer Advisory Board of the Public Utilities Commission. She has sponsored legislation in government operations, women's issues, health and safety, and in environmental matters (environmental rights, litter, water quality, bottle bill, oil spills). Kilmarx is interested in conservation and encouragement of renewable sources, i.e., tax incentives for solar and hydro amendments to statewide building code, life cycle cast analysis, co-generation, and energy facility siting. Related legislative interests are water quality, land use, and control of hazardous substances including waste oil. Kilmarx graduated from Mount Holyoke.

DICK KLOUBEC is a Republican state representative in the North Dakota House. He was first elected in 1972 and reelected in 1976 and 1978. Kloubec serves on the North Dakota Legislative Council and chairs the Natural Resources Committee. He is a member of the committees on Industry, Business and Labor. Kloubec graduated from North Dakota State University and is now a business executive.

NATHAN G. KNIGHT serves as a state representative in the Georgia General Assembly. He is the House Democratic majority whip.

FRANKLIN J. KNOLL is serving his third year as a Democratic senator in the state of Minnesota. Knoll is vice chairman of the Energy and Housing Committee and chairman of the Subcommittee on Housing. He received his B.A.

in chemistry and biology from St. Johns University and J.D. from the University of Minnesota Law School.

JOSEPH T. KURODA is a Democratic senator of the Hawaii State Senate. He is chairman of the Tourism Committee, Vice-Chairman of Intergovernmental Relations and member of the Consumer Protection and Commerce, Education, and Judiciary committees. Kuroda attended the University of Hawaii and received a B.Ed. and masters in Education.

W. CRAIG LAWING, a Democrat, is president pro tempore of the North Carolina Senate. He chairs the committee on Rules and Operations of the Senate.

JOHN E. LEE, a Democrat, has served in the Mississippi State Senate since 1976. He is a member of the committees on Finance, Highways and Transportation, Oil and Gas, and Agriculture. He has a B.S. from Mississippi State University.

C. W. "BILL" LEWIS is a Republican member of the Arizona House of Representatives. He is a member of the Appropriations, Transportation, Health, Banking and Insurance, Tourism, Environmental Concerns and Rules Committees. He is editor of Wildlife Views and associate editor of the Arizona Farmer & Ranchman. Lewis received a B.A. from Tusculum College in Tennessee.

FRANK LEWIS has been a senator in the Nebraska Legislature since 1972. He chairs the Executive Board of the Legislative Council and is a present or former member of the committees on Banking, Commerce and Insurance, Business and Labor, Miscellaneous Subjects, Urban Affairs, Public Health and Welfare, Nebraska Retirement Systems, and Legislative Audit Review. He also serves on the Committee on Committees and the Advisory Committee for Postsecondary Education. Lewis is a member of interstate education committees and Nebraska Commissioner to the Education Commission of the States. He attended East Central College in Ada, Oklahoma and was a teacher and administrator in public schools from 1961-72. He is now a member of the board of directors of the Center State Bank in Center, Nebraska and Bellevue Cable Television-United Television Corporation. He also does independent public relations consultant work and is associated with Pre-paid Legal Services in Ada, Oklahoma.

PAUL LONGORIA, a Democrat from Edinburg, Texas, has been in the Texas Senate for seven years. Prior to that, he was a member of the House of Representatives for ten years. A practicing attorney, Senator Longoria received his J.D. from the University of Texas. He is the chairman of an Interim Study Committee on Gasahol and also serves on the standing Committee on Finance.

DAVID E. LUCAS is a Democratic representative in the Georgia Legislature. He was one of two blacks elected to the Georgia House in 1974, the first since the reconstruction period. Lucas serves on the following committees: Human Relations and Aging, Motor Vehicles, Motor Carriers, and the University System of Georgia. In 1979 he was coordinator of the first energy conference held for minority elected officials in the country in Atlanta, Georgia (CMES). Lucas received a B.S. degree in political science from the Tuskegee Institute and is presently enrolled in the Atlanta Law School. Since 1976 he has been co-owner, vice president and head football coach of the Macon Chiefs Football, Inc. In 1978 he started a supply company and in 1979 the Taff Cellulose Manufacturing and Insulation Company of which he is president. Lucas has won several athletic honors and awards for civic service.

JAMES A. McBREAIRTY, a Republican, is serving his first term in the Maine Senate. Previously he served for four years in the House. McBreairty chairs the Energy and Natural Resources, and the Audit and Program Review committees. He has also been a member of the committees on Natural Resources, and Appropriations and Financial Affairs.

KATHLEEN McBRIDE is a first term Democratic state representative from Montana. She is vice-chairperson of the Montana Renewable Energy Advisory Council. McBride is interested in particulary renewable energy and natural resources. She received her M.S. from the University of Montana and B.S. from the University of Redlands. She is a geologist.

MARY McCLURE has served as a Republican state senator in the South Dakota Legislature since 1975. She is president pro tempore of the Senate and chairs the Judiciary, Interim Rules Review, and Intergovernmental Cooperation committees. McClure is also a member of the committees on Legislative Procedure, State Affairs, and Health Rules Sunset, and she serves on the executive board of the Legislative Research Council. In the past she has served on Transportation, and Interim Agriculture and Natural Resources committees. McClure is interested in administrative oversight and water development. She graduated from the University of South Dakota.

HARRIS B. McDOWELL, III has served as a Democratic state senator in the Pennsylvania Legislature since 1976. He is chairman of the Senate Energy Committee and is a member of the Joint Finance, and Administrative Services committees. He is interested in an equitable energy policy, legislative reform and fiscal responsibility. McDowell attended the University of Delaware and Georgetown University. He is a self-employed business consultant.

BRUCE McMILLAN is a Republican state representative in the Wyoming House of Representatives where he has served for eight years. He chairs the House Committee on Mines, Minerals and Industrial Development and is a member of Health and Social Services Committee. He has also served on the Travel, Recreation and Wildlife, and Transportation and Highways committees. McMillan is interested in energy and its related growth problems. He graduated from the University of Wyoming and is the president of an agribusiness.

GERALD K. MACHIDA has been a state senator in Hawaii for five years. A Democrat, Machida is chairman of the Senate Agriculture Committee. He is vice chairman of the Senate Tourism Committee and a member of the Education, Health, Judiciary, and Transporation committees. His major legislative interests are economic development and education.

DONALD E. MAINEY is a state representative from Kansas serving his fourth term. A Democrat, he is house minority whip. Mainey is a member of the Energy and Natural Resources, Interstate Cooperation and Calendar and Printing committees. His legislative interests are energy and natural resources, transporation and related issues.

JAMES C. "CON" MALONEY, has been a Mississippi state senator since 1971. He chairs the Mississippi Corrections Committee, is vice chairman of the Banking Committee and a member of the Finance, Oil and Gas, Elections, Judiciary and Rules committees. Maloney is president of Cowboy Maloney's Appliance Centers, a director of the Jackson Chamber of Commerce and the Better Business Bureau. He is a graduate of Millsaps College and recognized in Who's Who in American Politics.

FRANKLIN B. MANN, a Democrat is a representative in the Florida Legislature.

ROBERT H. MILLER, a Republican, has served five terms in the Kansas House of Representatives. He chairs the House Committee on Energy and Natural Resources and is vice chairman of the Rules and Journal, and the Federal and State Affairs committees. Miller's major legislative interests are in energy, water, environmental issues, transportation, health care and rural development. He is a farmer and has a B.S. degree in agricultural economics.

WILLIAM W. MONTGOMERY is a legislator in the Indiana General Assembly. A Republican, he was elected in 1978. Montgomery is a member of the Public Policy and Veterans Affairs, Insurance and Corporations and Human Affairs committees, as well as Interim Study Committee on Energy Policy and on Bail Bonding. He is totally committed to the free market concept and the energy policy. He feels the issue is: How are we going to move ourselves in 20 years? Montgomery is a bussinessman with B.A. and J.D. degrees.

JACK M. MORGAN has been a New Mexico state senator since January 1, 1973. A Republican, he chairs the Southwest Regional Energy Council. Morgan is a member of the Senate Finance and Conservation committees as well as the Legislative Interim Energy and Environment Committee. He received a B.B.A. and Doctor of Law degree from the University of Texas.

G. F. MORTIMER is a Republicen representative in the South Dakota Legislature. He has served in the House for 14 years. Mortimer chairs the Agriculture and Natural Resources Committee as well as the Retirement Law Commission. He is also a member of the Health and Welfare Committee. His legislative interests include the Medical School, the State School lands, game, fish, agriculture, education, taxes, highways, and a reduction in government spending. Mortimer is a retired postmaster and proud grandfather.

AL MUELLER has been a Missouri state senator since 1970. A Democrat, he chairs the Energy Committee and serves on the Gubernatorial Appointments and Local Government committees. He is interested in energy, consumer affairs, and local government. Mueller has received the "Legislator of the Year Award" by the St. Louis Globe-Democrat. He has a B.A. degree in business administration from St. Mary's University in Texas.

JOE NEAL is a state senator from Nevada. A Democrat, he is chairman of the Economic Opportunity Board, Natural Resources Committee, and the Greater Las Vegas Plan as well as delegate to the White House Conference on Energy. Neal is a member of the Legislature Committee and vice chairman of the Human Resources Committee. He has a B.A. in political science and history and has done post-graduate work in law.

SARAH LEE NEAL has been a Democratic member of the West Virginia House of Representatives for eight years. Neal chairs the Agriculture Committee and Sub-committee on Appropriations. Her major legislative interests are in the agriculture issues in her area, preparing the state budget, conservation of energy and utilities, and costs for persons on fixed incomes. Neal is a real estate broker.

KEN NELSON, a member of the Democratic Farm Labor Party, was first elected to the Minnesota House of Representatives in 1971. In 1978 he chaired the House Select Committee on Energy. At present, he serves on the Energy and Utilities, Education, and Criminal Justice committees. Nelson has done

graduate work in energy policy at the University of Minnesota Hubert Humphrey Institute. He is interested in energy legislation to promote conservation and develop renewable and alternative energy systems for Minnesota.

KNOX NELSON, is president pro tempore of the Arkansas Senate. His political career began in 1956 when he was first elected to the Arkansas House. After two terms in the House, he was elected to the Senate where he has served since 1960. He is a member and past chairman of the Legislative Council and serves on the Joint Budget Committee on State Agencies and Governmental Affairs. He chairs the Joint Communications Study Committee and the Southern Legislative Conference Energy Committee. Nelson is president and founder of the Knox Nelson Oil Company in Pine Bluff, and is a farmer.

BOBBY G. NEWMAN, a Democrat, serves in the Arkansas House of Representatives.

RAY NIELSEN, a Democrat, has served in the Utah House of Representatives since 1973. He is minority leader of the Natural Resources and chairman of the Natural Resources Appropriations committees. Nielsen serves also on the Energy Task Force and on Transportation. He is interested in energy, water, resources, and mining. Nielsen is retired from the Corps of Engineers. He has won the U.S. Military Star, the France Military Croix de Guerre and the Columbia Military Order of Cordoba. Nielsen is a graduate of the Corps of Engineers Advanced Engineering School, Ft. Belvoir, Virginia.

TOM NORTON is a Democratic state representative in the Massachusetts Legislature where he has served for seven years. He chairs the committees on Energy, and Science and Technology, and the special committee to study liquid natural gas. Norton attended Bridgewater State College in Massachusetts.

BERNARD F. O'BRIEN, a Democrat, is a state representative in the Pennsylvania House. He is minority chairman of the Mines and Energy Management Committee.

DONALD R. O'LEARY, a Democrat, serves in the Maine Senate.

RALPH OMSTEAD, a Republican, is serving his first term as speaker of the Idaho House of Representatives. He was elected to that position in 1979 after having served six years in the House. For four years he was a member of the Revenue and Taxation Committee, and for two years he chaired the Revenue Projection Committee. He also served on the Appropriations Committee and was chairman of the House Ways and Means Committee. Prior to becoming a legislator, Olmstead was a commissioner of the Twin Falls County Highway District for 15 years. He graduated from the University of California, College of Agriculture, at Davis and is presently engaged in a ranching business.

ANGELO F. ORAZIO has been a New York assemblyman since 1975. A Democrat, he chairs the Energy Committee and is a member of the Education, Labor, Environmental Conservation, and Real Property Taxation committees. He was chairman of the Legislative Commission on Energy Systems from 1977 to 78. Orazio is an engineer with an undergraduate degree from Rensselaer Polytechnic Institute and a graduate degree from Yale University. He is the patent holder for the "Pulse Compression Radar System".

NAOMI W. OTTERNESS is serving her first term as a Connecticut state representative. A Democrat, she is on the Human Services, Education, and Energy and Public Utilities committees. Her legislative interests are energy

conservation and alternatives, delivery of mental health services, and equalization. Otterness received her B.S. from the University of Wisconsin in mathematics, chemistry and education and an M.S. from the University of Southern California in chemistry.

JAMES K. OTTS is a fifth year Democratic state representative in the New Mexico Legislature. He chairs the Business and Industry Committee, is vice-chairman of the Radioactive Waste Consultation Committee and a member of the Education Committee. He attended Southwestern Agriculture College and received the Outstanding Leadership Award--Southwestern Council, 1974-78.

ROY PECK is a state senator in the Wyoming Legislature. A Republican, he has served in the Senate since 1971. Peck is a member of the Mines, Minerals and Industrial Development Committee and of Political Subdivisions. Peck is interested in energy, economic planning, education, and travel and recreation. He is the co-publisher of the Riverton Daily Ranger and other newspapers. Peck holds a B.A. in journalism from the University of Wyoming. He has won the Wyoming Distinguished Citizen Award.

JOHN PELTON is a second term Republican state representative from Iowa. He chairs the Iowa House Energy Committee and also serves on the Commerce and Judiciary committees. In his first term Pelton was a member of the Natural Resources committee. An attorney and community college instructor, Pelton received B.A., M.A. and J.D. degrees from the University of Iowa.

RICHARD H. PIERCE was elected to the Maine Senate in 1974. A Republican, he serves as assistant majority leader. He chairs the Leadership Council and the Election Laws Committee. Pierce is an educational consultant. He graduated from Boston University (A.B.) and the University of Maine (M.S.Ed.)

JOE RAY, a Democrat, has served in the Arkansas Senate since 1972. During his four terms in the Senate he has been appointed to the Committee on Revenue and Taxation, the Committee on Agriculture, Economics and Industrial Resources, the Efficiency Sub-Committee, the Joint Committee on Retirement and Social Security and the Energy Committee. A farmer, he was a pioneer in the development of the Arkansas poultry industry. He is also a director of the State Bank of Danville, Arkansas.

ROLLAND W. REDLIN has been a North Dakota state senator for 16 years. A Democrat, he serves as assistant minority leader (whip). Redlin is a member of the Natural Resources and the Finances and Taxation committees. He chairs the Natural Resources Information Systems Task Force of NCSL and is a member of the National Advisory Council of SBA. Redlin is interested in natural resources development with particular emphasis on fossil fuels and water resources. A former U.S. Congressman, Redlin is vice president of First Western Bank of Minot and a part-time farmer.

JAMES D. REEVES is serving his second term as a Republican representative in the Colorado Legislature. He is chairman of the Energy Coordinating Council and a member of the Transportation and Energy and Local Government committees. Reeves holds a B.A. and an M.A. in public administration.

SANDY RICHARDS is a Democratic sophomore state representative in the Oregon Legislature. She chairs the Aging and Minority Affairs Committee and co-chairs the Arson Committee. She is also a member of the Judiciary Committee and of the NCSL Energy Committee. Previously, she has served on the committees on Environment and Energy, and Energy Review.

FRED A. RISSER, a Democrat, is president pro tempore of the Wisconsin senate, an office he has held since 1975. He was elected to the State Assembly in 1956, 58 and 60 and has served in the Senate since 1962. Risser was Senate minority leader in 1967, 69, 71 and 73. He chairs the Senate Organization and Joint Organization committees, the special committees on Definition of Death and State Employment Relations, the Joint Committee on Employment Relations and the Joint Survey Committee on Debt Management. He is vice chairman of the Building Commission and Bond Board, and the Special Committee on Determinate Sentencing. Risser holds a B.A. and LL.B. from the University of Oregon and is a member of the Oregon, Wisconsin, and Dane County Bar Associations.

BRIAN ROGERS is a Democratic representative in the Alaska State House, serving his first term in finance. He chairs the University and Social Services subcommittees and is co-chairman of the Constitutional Convention and Power Alternatives committees. Rogers is secretary of No Nukes of the North. He is active in many publications such as Alaskas Energy Policy: Issues & Options (1978) and Small Farm Policies: Options for Fairbanks (1979). He has attended Trinity College, Brown University and the University of Alaska, and is currently a research writer.

GEORGE F. ROSKIE has been a Republican senator in the Montana Legislature since 1975. He chairs the Senate Natural Resources Committee and the Interim Energy Forecasting Study. He is also vice chairman of the Energy and Resources Committee of the C.S.G. Western Conference and serves on the C.S.G. Ad Hoc Committee on Pacific Northwest Energy Legislation. Roskie, a retired assistant regional forecaster (U.S.F.S. Alaska), is also a member of the Western States Legislatures Forestry Task Force. He is interested in natural resources, particularly land use management, all phases of energy, taxation as it affects energy and natural resources, and in the states' role in the national energy program--development, production, distribution and conservation. Roskie hold a B.S. in forest and range management from the University of Montana.

JAMES L. "JIM" RUSSELL- Serving his third term in the Missouri House of Representatives, Russell represents the people of the sixth district in Northwest Missouri. A Democrat, he chairs the House Commerce Committee and the Subcommittee on Radiation Control. He is also a member of the Agriculture and Energy and Atomic Energy committees, as well as the National Gasohol Commission. Russell is a graduate of the University of Missouri at Columbia with bachelor and master of science degrees.

CHET SCOTT, JR. serves in the Vermont Senate. A Republican, he was a member of the House from 1973 to 1974 and has been a senator since 1976. Scott serves on the committees on Education, and Energy and Natural Resources, and he chairs the Vermont Joint Energy Committee. He represents the Senate of the New England Energy Congress on the United States Council of State Governments. Scott is interested in alternative energy sources, natural resources and utilities. He has a degree in business administration and is manager of accounting for a corporation.

ROBERT C. SCOTT is a Democratic delegate in the Virginia General Assembly, where he has served for one session. He is a member of the Health, Welfare and Institutions, and Claims committees. Scott's major legislative interests include lifeline utility rates, a rate structure to provide base amount of energy at an affordable price and to increase the rate as use increases. Another concern is the Neighborhood Assistance Act. This act would allow

corporations to receive a tax credit for contributions to an impoverished area to aid in rehabilitation. Scott graduated from Harvard with a B.A. and Boston Law College with a J.D. degree.

CLYDE M. SEE, JR., a Democrat, is speaker of the West Virginia House of Delegates and former majority leader. He chairs the House Rules Committee, co-chairs the Purchasing Practices and Procedures Commission, is ex officio chairman of Joint Rules and the Joint Committee on Government and Finance. See is an attorney with a B.A. and J.D. from West Virginia University. He co-authored a report on South African Coal liquefaction.

ARTHUR H. SHELDON represents the 22nd legislative district from Montana. A Democrat, he has served in the Legislature for 16 years and is now chairman of the Natural Resources Committee. He is also a member of the Business and Industry Committee. Sheldon graduated from Montana State University.

GEORGE H. SHELDON is a Democratic representative in the Florida Legislature. He chairs the House Committee on Regulatory Reform and is a member of Appropriations; Health and Rehabilitative Services; Corrections, Probation and Parole committees; and the Select Committee on Energy. An attorney, he is a graduate of Florida State University.

DOUGLAS H. SILLERS, an Independent Republican, has been a Minnesota state senator for eight years. He also served 10 years in the Minnesota House. Sillers is a member of the committees on Taxes, Special General Corrections, Judiciary, Education, Energy and Housing, and the Joint Committee on Land Preservation. A farmer and legislator, Sillers is the author of a weekly column.

MARVIN A. SKIE is serving his second term as Republican representative in the South Dakota State Legislature. He is a member of the Local Government, Agriculture and Natural Resources, and Water Energy Interim committees. Skie has held such positions as former Wing Commander of South Dakota State Civil Air Patrol, and former Executive Director of the State of South Dakota Farm Bureau. Skie is a retired commercial pilot.

STEVEN V. SKLAR, a Democratic delegate from Maryland, has served in the Legislature for 11 years. He is chairman of the Nuclear Energy Subcommittee for the National Conference of State Legislatures. Presently he is a member of the Joint Energy, House Environmental Matters, and Administrative, Executive and Legislative Review committees. Sklar is an attorney and a graduate of the University of Pennsylvania, Wharton School of Finance with a B.S. in economics and the University of Maryland School of Law with a LL.B. degree.

BILL SMITH serves in the Alabama Senate. A Democrat, he was a member of the House from 1974-78. Smith chairs the Governmental Affairs and Sunset committees and is vice chairman of the Energy Advisory Committee. He is also a member of the Finance and Taxation, Health and Welfare committees. He is interested in the new constitution for Alabama, energy sources and credits, health problems, child abuse and transportation problems. Smith graduated from Tennessee Tech. University with a B.S. in mathematics. He is a partner with Smith and Wilburn Associates, consultants in transportation and community planning and traffic engineering.

GLADE M. SOWARDS a Republican state senator from Utah has served 11 years in

the Legislature. He was speaker of the House from 1977 to 1978. Sowards chairs the Energy and Natural Resources Committee, is a member of Appropriations--Natural Resources, and vice chairman of the NCSL Energy Committee. His legislative interests are energy and natural resources, and science and technology. Sowards is president of H. S. Sowards & Sons, Incorporated, which specializes in oil jobbing. He graduated from the University of Utah with a B.S. degree in accounting.

JUDITH STAHL is a Republican state representative from New Hampshire. Some legislative positions held by Stahl include: Delegate to the White House Conference on Library and Information Services, past chairperson of the School Volunteers Advisory Board; member of New Hampshire Committee on Children and Youth and the vice chairperson of the House Science and Technology Committee. She received a B.S. in education from the University of Lovell. Stahl is particularly interested in the conservation of energy.

JESS STAIRS has served three years as a Republican state representative in the Pennsylvania Legislature. He is vice chairman of the Mines and Energy Committee and a member of the Agriculture and Game and Fishing committees. Stairs received his B.S. and M.Ed. degrees from Pennsylvania State University.

IRVING J. STOLBERG is a Democratic state representative in the Connecticut Legislature. He was elected to the Connecticut General Assembly in 1971 and chairs the Finance Revenue and Bonding Committee as well as Human Services, Legislative Interinships Program and the National Conference of State Legislatures Human Resources committees. Stolberg is interested in tax reform, social services, education, economic conversion, and the energy program funding. He is a professor of geography with a B.A. from U.C.L.A., and Ph.D. from the University of Boston.

ANN STRAND is a Democratic state representative in the Wyoming Legislature. She is a member of the Mines, Minerals, & Industrial Development Committee with sub-committee assignments in Solid Waste Disposal and Mining Claims Validation. Her major interests are in mine safety and health, energy conservation and a fair and equitable resolution of problems confronting industry and the citizens of the state in production, allocation, distribution, development and costs. Strand has a B.A. from Piedmont College and has done graduate work at the University of Wyoming.

THERON L. STRINDEN represents the 24th legislative district in the North Dakota State Senate. He has served in the Legislature for 16 years and is now chairman of the Republican Senate Caucus and Senate president pro tempore. He serves on the Appropriations Committee and is interested in taxation, the control of excessive government growth, education and fiscal responsibility. Strinden is a businessman.

JOSEPH STROHL, a Democratic senator in the Wisconsin Legislature, is a member of the Select Energy, Utilities and Natural Resources committees. He was an aide to U.S. Representative Les Aspin from 1970-1978. Strohl's major legislative interests include energy, utility reform, nuclear energy, and environmental protection. He graduated from North Michigan University with a B.S. in political science.

WILLIAM TELEK is a first term, state representative in the Pennyslvania Legislature. A Republican, he is secretary of the Mines & Energy Management Committee. He is also a member of the Military & Veterans Affairs and the

Conservation committees. Telek received a M.Ed. from Pennsylvania State University.

DON THORSON is a first term representative of the 45th district of the Wyoming State Legislature. A Republican, he is a member of the Mines, Minerals, and Industrial Development and Revenue committees. Thorson is president of Toco Corporation in oil production. He graduated as a geophysical engineer from the Colorado School of Mines.

DAN TONKOVICH is a West Virginia state senator. A Democrat, he also served two terms in the West Virginia House of Delegates. He has been a member of the Finance, Labor Confirmations, Public Institutions, and Transportation committees and vice chairman of the Senate Health Committee. Tonkovich has been instrumental in efforts to improve procedures and processes in his legislature. In 1979, he successfully sponsored a measure permitting standing committees to conduct interim studies. Tonkovich is a real estate agent and public relations management consultant, and he serves on the LEGIS/50 Business Advisory Council. He received a bachelor's degree from West Liberty State College and a master's degree in public administration from the Maxwell School of Citizenship at Syracuse University.

THOMAS E. TOWE, a Democrat, has served in the Montana State Senate since 1971. He is a member of the interim committees on Corrections Policy and Facility Needs, Revenue Oversight and Coal Tax Oversight (liaison) and serves on the Senate Taxation and Senate Judiciary committees. In 1974 he was vice-chairman of the interim committee on taxation of coal and other fossil fuels. Towe has successfully sponsored utility legislation opposed by the Montana Power Company and also sponsored the highest coal tax in the nation which has not reduced the mining of coal. He has also worked on alternative energy research. An attorney, he is a graduate of Earlham College, the University of Montana and Georgetown University. He has authored numerous articles for major legal publications.

DIEMER DURLAND TRUE, a Republican senator in the Wyoming Legislature, was first elected to the Wyoming House in 1972, reelected in 1974 and elected to the Senate in 1976. He is chairman of the Mines, Minerals and Industrial Development Subcommittee and has served on the House Transportation and Highways Committee and Judiciary Committee of the Senate. True is vice president of Black Hills Oil Marketers, Inc. and president of Midland Financial Corporation. He graduated from Northwestern University.

J. CHRIS ULLO is serving his third term as Democratic state representative in the Louisiana Legislature. He is a member of the Natural Resources, Judiciary, and the Southwest Regional Energy committees. His major legislative interests are energy and natural resources, property taxes and local government. Ullo was awarded Legislative Conservationist of the Year in 1977. He attended Tulane University of engineering.

CLIFFORD T. UWAINE is serving his second term as a state representative in the Hawaii Legislature. A Democrat, he chairs the Energy Committee and is a member of the committees on Education, Higher Education, Culture and Art, Agriculture, Ecology, Ocean and Marine Resources, Water and Land Use. Uwaine is a graduate of the University of Hawaii (B.Ed. and M.Ed.).

DALE M. VOLKER is a Republican-Conservative state senator in the New York Legislature. He was elected to the New York State Assembly in 1972 and first

elected to the Senate in February 1975. Volker chairs the Senate Energy Committee. He is a member of the committees on Mental Hygiene and Addiction, Crime and Corrections, Codes (Criminal Justice), Civil Service and Pensions, Aging, and the Selective Committee on Crime. His major legislative interests are in crime and energy. Volker is an attorney and graduated from Canisius College and S.U.N.Y. at Buffalo Law School (LL.B., J.D.).

PETER VON REICHBAUER is a Democratic senator in the Washington Legislature. He chairs the Parks and Recreation Committee.

VERNON E. WAGNER, a Republican, is speaker of the North Dakota House of Representatives. He has been a representative for 18 years. Wagner has chaired the Appropriations Committee and is interested in appropriations, finance and health. He holds a B.S. in pharmacy.

JOHN H. WALDROP has been a senator in the Mississippi Legislature for five years. A Democrat, he is a member of the Finance, Highways, Insurance, Judiciary, Agriculture, and Forestry committees. Waldrop has a B.S. degree and is an insurance sales agent.

LORINE M. WALTER is assistant majority whip in the New Hampshire Legislature. A Republican, she is presently a member of the Legislative Utilities Consumers Council, Transportation and the Joint Legislative Committee on the feasibitity of Restoring Rail Service. Walter has been active in many various women's organizations.

JAMES GRAVES WARD represents the sixth district in the Florida Legislature. He was first elected in 1976 and re-elected in 1978. His committee assignments include: Appropriations, vice chairman of the Insurance Committee, chairman of the Bank and Finance Subcommittees, Natural Resources, Governor's State Housing Goals Council, Joint State Lands Study Commission. Ward is a graduate of the Southern Technical Institute, where he majored inagricultural engineering technology. He holds a State of Florida general contractor's license and is president of James G. Ward General Contractors, Incorporated.

ALAN WHEAT is a Missouri state representative. A Democrat, he has served in the House for four years. Wheat has sponsored a $5.1 million "Utilicare" program that will provide assistance to the elderly. He is treasurer of the National Black Caucus of State Legislators.

JOE E. WHITESIDES has served six years as Republican state representative in the Utah Legislature. He is a member of the Energy and Natural Resources and Public Education committees and is chairman of the Rules Committee. He has a M.S. degree.

ARNIE WIGHT has served as a Republican representative on the New Hampshire House since 1977. He chairs the Science & Technology Committee on Growth Management and Economic Development. Wight is a member of the Joint Legislative Committee on Radioactive Waste Management Policy. He is manager for the Eastern Region Plastics Intermediates Department of Rohm and Haas Company.

KATS YAMADA is the Democratic majority floor leader in the Hawaii House of Representatives. He has been a legislator for four years. Yamada is an attorney and earned his J.D. from the University of California at Davis.

LARRY YOUNG is a Democratic delegate in the Maryland General Assembly, where he has served since 1975. He is a member of House Environmental Matters and chairman of the Subcommittee on Health. Young is interested in health, energy, urban policy, and career education. He is president of the Center for Urban Environmental Studies and chairman of the National Caucus of Black State Legislators on Energy. Young won the annual award of the National Environmental Education Association.

ALAN L. ZIRKLE is serving his fourth term as a state representative in the Indiana General Assembly. A Democrat, he is a member of the Government Reorganization, Roads and Transportation; Metropolitan Affairs and Nuclear Energy committees. Zirkle's major legislative interests are fiscal management and alternative energy. He has a B.S. degree from Indiana University.

SOHIO

ENERGY AND YOU

July 1979

Windfall profits tax could hinder U.S. energy goals

The timing couldn't be worse. While Americans face the grim realities of uncertain energy supplies, Congress is working on a windfall profits tax which could create a serious disincentive to future U.S. energy development.

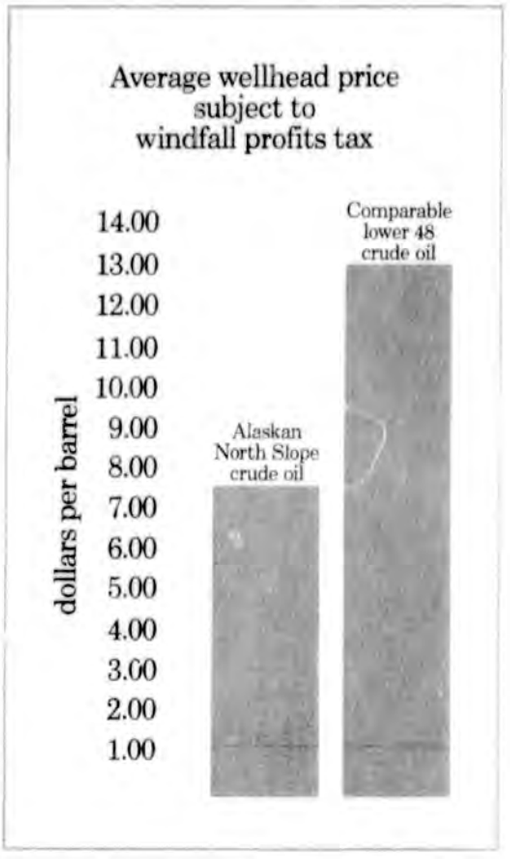
Our country now is at a critical energy crossroad. We urgently need to find and produce more domestic energy supplies and reduce our dependence on foreign oil.

The windfall profit proposal would tax U.S. oil companies on revenues received from decontrol of crude oil prices, instead of allowing producers to reinvest those revenues in domestic energy development. This measure would discourage investment in future energy production, particularly in Alaska, by failing to recognize the financial risk involved in developing frontier oil.

The House Ways and Means Committee passed a stringent windfall profits tax, then the full House reduced the tax by a 236 to 183 vote. This suggests that Congress is beginning to see the impediment to domestic energy development the tax could create. This change may also have been stimulated by the recent announcement by the Organization of Petroleum Exporting Countries (OPEC) to raise crude oil prices and restrict supplies, as well as the President's commitment in Tokyo to limit current and future U.S. oil imports.

President Carter originally exempted Alaska North Slope crude oil from his proposed windfall profits tax, but the House extended the tax to North Slope crude discovered before 1979. Alaska oil would be taxed on any increases above an arbitrary $7.50 per barrel wellhead ceiling. Similar oil produced in the Lower 48 states would only be taxed when increases in wellhead value went above $13 per barrel.

Oil producers in the Lower 48 states would receive some benefit from decontrol, even with the windfall profits tax. Alaska oil producers would not receive any



benefit from decontrol until wellhead prices exceed $13 per barrel but would be taxed on revenues above $7.50 per barrel. Alaska wellhead values are now above the $7.50 level so imposition of the proposed tax would, in effect, force a rollback in the Alaska wellhead values!

The windfall profits tax is not in keeping with the Administration's original pricing policy for North Slope crude oil. In 1977, the Administration set the ceiling price for North Slope crude at the level of the

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ceiling price for the nearest oil field with similar oil—the Cutbank Montana field. As a result, the ceiling price for North Slope crude is now in the range of $13 per barrel. The administration believed this incentive was needed to encourage investment in developing frontier oil. But the proposed windfall profits tax would substantially diminish that incentive.

Sohio contends that the high exploration and transportation costs of North Slope crude make this tax unfair. It costs from $7 to $9 per barrel to bring Alaska North Slope crude oil to U.S. markets compared to about 50 cents per barrel for Lower 48 oil.

Tax is disincentive

"If this new tax on Alaska North Slope crude oil remains in the ultimate legislation," says Sohio Chairman Alton W. Whitehouse Jr., "it will create another major disincentive to present and future oil exploration in Alaska, where the Federal government has estimated 30 percent of the undiscovered oil reserves in the entire United States are to be found."

Some legislators may argue that the tax would not be a disincentive to investment because newly discovered North Slope crude would be exempt from the windfall profits tax. Sohio's response to this argument is, "Who will really believe that?" Past experience now reconfirmed by this new tax shows that Congress keeps changing the rules after the fact. If an oil company drills an expensive well on Alaska's North Slope and finds no oil, no one will come to bail it out. But if the company is successful and finds substantial new oil reserves, it can expect a big after-the-fact penalty.

The regulatory treatment North Slope crude now receives will be significant in determining the development of Alaska's oil reserves in the years ahead.

Return or profitability on risks taken is the key to any company's business decisions. The enormous costs and risks of exploration and development of Alaska's oil reserves and after-the-fact changing of the rules are important factors in considering Arctic energy development.

If the government is trying to encourage greater development of U.S. energy supplies, it doesn't make sense to increase taxes on the basic form of energy we now rely on—oil and gas—just to bridge the gap to alternative forms of energy for the future.

The Senate Finance Committee is expected to take action on the windfall profits tax in July. Sohio is calling on members of the committee to take a long hard look at the possible consequences of the tax.

Want the latest information on Sohio's gasoline supplies and other company news?

If you are in the Ohio area, dial "Connections"—the company's new telephone newsline. There is a new message daily. Callers in the Cleveland area may phone 687-1722; elsewhere in Ohio, dial 800-362-4088. The latter toll-free number is available only in Ohio.

Letters to members of the Senate Finance Committee expressing the need for the U.S. to create incentives for developing domestic energy supplies would be timely. *Your* letter would especially help. Thanks. Write:

Senator Max Baucus (D-Mont.)
Senator Lloyd Bentsen (D-Tex.)
Senator David L. Boren (D-Okla.)
Senator Bill Bradley (D-N.J.)
Senator Harry F. Byrd, Jr. (D-Va.)
Senator John H. Chafee (R-R.I.)
Senator John C. Danforth (R-Mo.)
Senator Robert Dole (R-Kans.)
Senator David Durenberger (R-Minn.)
Senator Mike Gravel (D-Alaska)
Senator H. John Heinz III (R-Penna.)
Senator Russell B. Long (D-La.)
Senator Spark M. Matsunaga (D-Hawaii)
Senator Daniel P. Moynihan (D-N.Y.)
Senator Gaylord Nelson (D-Wis.)
Senator Bob Packwood (R-Oreg.)
Senator Abraham Ribicoff (D-Conn.)
Senator William V. Roth, Jr. (R-Del.)
Senator Herman E. Talmadge (D-Ga.)
Senator Malcolm Wallop (R-Wyo.)

Letters should be sent to the U.S. Senate Office Building, Washington, D.C. 20510

WASHINGTON WATCH



William C. Rountree, Sohio's director of Federal Government Affairs, kicks off this new column with an inside look at the role of a Washington representative. "Washington Watch" will appear regularly in Energy and You. *Some months it will alternate with "State Scene." In both columns, Sohio's Federal and state government representatives will provide you with a first-hand report on what's happening with important energy issues in Congress and the state legislatures.*

Ten years ago Sohio did not have a Washington office. The pervasive influence government has over all of our lives and over corporate life was not as intense as it is today.

Sohio's experience with government intervention first came with the passage of the Trans Alaska Pipeline Act. It was our initiation by fire to the acceleration of government regulations. We found what it takes to get a pipeline built in an era of extreme regulation.

In recent years there has been a marked trend toward more legislation and more government participation in business—especially the energy industry's business. With this comes an urgent need for an open advocacy of ideas.

As a Washington representative, I advocate Sohio's positions. I see that the company's point of view is considered when legislation is being drafted. I report the company's position fairly and accurately and spell out the impact legislation would have on others. In explaining Sohio's viewpoint, I use as many facts and figures as I can find because my personal credibility is the company's credibility.

If you are honest, open, responsive, and accurate, members of Congress and administrative officials will listen, respect your views, and take your advice many times.

In outlining my responsibilities as a Washington representative, I basically have four functions:

- To provide information to Congress.
- To inform management of government actions which affect the company.
- To assist in the development of the company's position.
- To communicate Sohio's position and work with people so they understand the company's viewpoint.

Washington representatives must become experts on many issues and be able to explain their complexities. They advise members of Congress on the options available to them when they are considering legislation, and help them keep in touch with the interests of the people back home.

There are seven members on Sohio's Federal Government Affairs staff. Four of these staff members are specialists on certain issues and represent the company on these issues when they are before Congress and the Executive Branch. Sohio's Washington staff also interacts with other companies and groups in working to support good legislation.

Government could not function effectively without good lobbyists. We are an essential link in keeping the information flowing between business, government, labor and other interest groups. This information is essential to legislators trying to write workable laws.

House passes Alaska lands bill

In an effort to resolve the Alaska lands conflict, the House voted 268 to 157 to set aside 125 million acres of Federal lands in Alaska, an area larger than the state of California, for national parks and wildlife preserves. The measure restricts oil and gas development, timber harvesting, and mining. It also prevents access to 67 million acres of classified wilderness areas with significant potential oil and gas reserves. Exploration for oil and gas, minerals, and other natural resources is strictly prohibited in these areas.



The United States Geological Survey says there may be billions of barrels of undiscovered oil in the Arctic National Wildlife Range which falls into the wilderness category. It may never be known whether there is another large oil field in the wildlife range if this legislation passes.

Other provisions

In gaining access to wildlife refuges, oil producers would be required to file for an exploration permit to search for oil, then turn the results of their findings over to the U.S. Interior Department. This would be followed by a competitive lease sale where producers would bid on land tracts for the right to drill wells. The government might even decide against holding a lease sale after producers spent millions of dollars and workhours in exploration. This is hardly an encouraging approach to stimulate investment in non-government dollars.

Although H.R. 39 does not threaten Sohio's Prudhoe Bay operations or its immediate plans in Alaska, it does put a damper on the company's options for future exploration and production in the state.

In recent years, public support for the need to protect the balance of Alaska's natural environment has increased. In response to this concern, the oil industry took unprecedented environmental protection measures in development of the Prudhoe Bay oil field and construction of the pipeline.

Sohio believes preservation of Alaska's wilderness and resource development are not mutually exclusive goals. Both can be achieved if Congress takes a balanced approach in reaching its decision.

Campaign Financing

Will Congress pass the ultimate perk?

A move is underway in Congress to get taxpayers to foot part of the bill for financing general elections.

Senator Edward M. Kennedy (D.-Mass.) and seven other senators introduced a measure which would subsidize Senate election campaigns beginning in 1980. Kennedy estimates the bill, S.623, would cost taxpayers at least $54 million over the course of a six-year term.

The House Administration Committee last May voted 17 to 8 against reporting a similar bill, H.R. 1, out of committee. But the bill could still make it to the House floor as an amendment to other legislation.

With this proposed public campaign financing, candidates who can certify they have raised a minimum amount in private contributions and agree to comply with a campaign spending limit, would be eligible to receive matching funds from taxpayers.

In a 1978 survey by Civic Service Inc., a public affairs research firm, 67 percent of the public opposed taxpayer campaign subsidies while 21.5 percent approved.

Many think that public campaign financing would give unfair advantage to incumbents over challengers in congressional races. Historically, incumbents have been able to raise more money for campaigning than their challengers. According to the latest Federal Election Commission reports, they raised twice as much as non-incumbents through individual contributions over $100.

Fringe benefits

Public campaign financing might even discourage good candidates from running for office because the other financial cards are stacked against them.

A recent study by Americans for Democratic Action (ADA) outlines the benefits incumbents have over challengers. At public expense incumbents get:

- Staff, office equipment, and supplies for both Washington and home district offices,
- Travel to and from home district,
- Newsletters touting their achievements,
- Free postage,
- Budget for long distance phone calls,
- Use of computers to store constituents' names and addresses,
- Free use of Congressional television and recording studios to tape messages for local media.

The ADA says this adds up to a half-million dollar advantage over the challenger, not to mention the free press and access to the media incumbents already get just by holding office.

Public campaign financing will not only hurt taxpayers' pocketbooks. Some dollars may go to support candidates they *don't* want elected.

Proponents of public campaign financing claim it would protect the election process from special interest groups like political action committees (PACs). They contend these PACs have too much influence in congressional elections but facts don't support this.

A report by the Federal Election Commission reveals that all PACs—corporate, labor, and non-party—contributed 16 percent of the total funds candidates raised in the 1978 congressional races. Individual contributions accounted for 66 percent and the rest came from other contributions and loans. Sohio has supported a broad-based approach to election campaigns.

Alaska oil tax challenged

Sohio and a group of oil companies have filed suit against the state of Alaska challenging a discriminatory income tax levied against the oil industry last year.

In 1978, the oil industry paid taxes of more than $160 million. This is about four or five times as much as it would have paid under the old law.

In their challenge, the companies claim the oil industry has repeatedly been singled out for discriminatory tax increases following the discovery of the Prudhoe Bay oil field in 1968. The Alaska Legislature has raised various oil industry taxes 12 times since then. The new tax applies to about 20 companies out of the thousands doing business in the state.

The suit charges that the tax is unconstitutional because it results in double taxation of income. Some income from sales of Alaskan crude in California and elsewhere is taxed outside Alaska, yet Alaska taxes 100 percent of the income, as if it were all earned in Alaska. Since California and other states charge taxes on a pro rata basis the income from the sale of Alaskan crude is taxed at least twice.

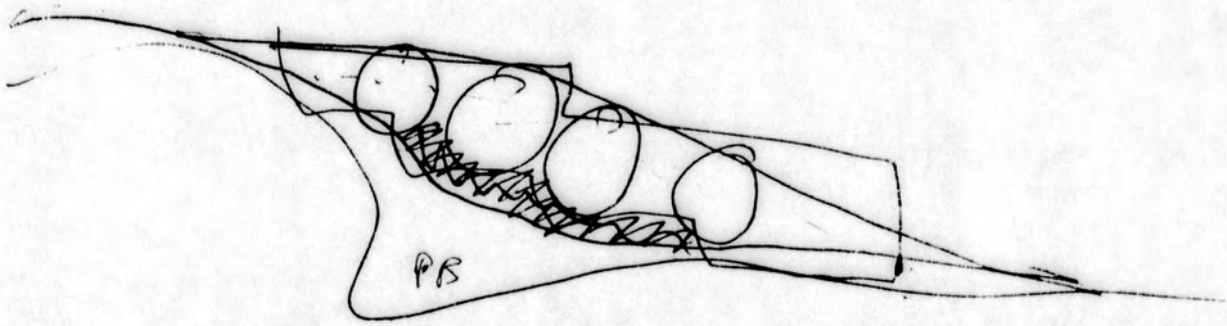
The tax further violates the Constitution, the suit notes, by taxing income from offshore wells on the Outer Continental Shelf, which is under the jurisdiction of the Federal government, not the state.

In addition, the companies contend the new law is not proportionate to the volume of business conducted in Alaska or the services rendered by the state.

PLEASE NOTE: THE FOLLOWING PAGES WERE TREATED AS A UNIT IN THE ORIGINAL DOCUMENT.

LEGIS/50

The Center for
Legislative Improvemen



Whereas the resolution of the energy problem will have to be assisted by a wide variety of distributed as well as centralized energy production systems, and whereas the various distributed energy production systems most appropriate to a state should receive state assistance if the goals of energy independence and security are to be achieved, therefore be it resolved that Legis/50 Town Meeting that greater focus be placed on developing innovative legislation to assist the rapid development of such distributed energy production systems using renewable energy sources since, for many energy poor states this might provide a substantial relief to the present stranglehold by the energy cartels.



Whereas mandated legislation from the federal government such as heating and lighting standards often deal with complex scientific or technological matters, and whereas this legislation is often based on considerable scientific and technological research, and whereas such mandated legislation should be subject to the well informed scrutiny of state legislators, and whereas such mandated legislation generally requires expertise at the state level to adapt the legislation to achieve the stated goals of such legislation for specific state application, therefore be it resolved that Legis/50 town meeting on energy request the federal government to accompany mandated legislation requests with appropriations sufficient to provide staff to demonstrate the appropriateness of the legislation at the specific state level and that the states also be provided with background research information briefs or bibliography used in the development of the legislation at the federal level.

Commerce (incl L+M)

~~State Affairs (Transport,~~

Energy (Oil + Gas, Renewable Energy, Conservation, etc)

Resources (Fisheries, Timber, Agriculture, Parks, etc)

Finance - ~~Appropriation~~ Budget
Revenue

Health + Social Services

Education

Judiciary

Rules

~~Community + Regional~~ Governmental Affairs

Transportation

S RULES

H RULES

Cotten
Parr
Brown
Hayes
Phillips

Anderson
~~Miller~~ Gardner

A G E N D A

THE DEPARTMENT OF

LEGISLATIVE TOWN MEETING ON ENERGY

December 19, 1979

1. Report on Community Impact Management
   Chairman: Representative Bill Edwards (Wyoming)

2. Report on Energy and the Economically Disadvantaged
   Chairman: Delegate Larry Young (Maryland)

3. Report on Licensing and Permitting
   Chairman: Representative Judith Stahl (New Hampshire)

4. Report on State Energy Emergency Legislation
   Chairman: Senator Alfred Alquist (California)

5. Report on Energy Transportation
   Chairman: Senator Joseph Strohl (Wisconsin)

6. Report on Nuclear Waste Management
   Chairman: Senator Paul Hess (Kansas)

7. Report on Synthetic Fuels
   Chairman: Senator Kenneth Buzbee (Illinois)

8. Report on Utility Policies, Conservation, and Emerging Technologies
   Chairman: Representative George Sheldon (Florida)

9. Closing Comments by Jim Arnold, LEGIS/50

10. Closing Comments by Jack Daly, Department of Energy

RECOMMENDATIONS

LEGISLATIVE TOWN MEETING

ON ENERGY

DECEMBER 17-19, 1979

DEPARTMENT OF ENERGY
LEGIS/50

BROWN PALACE HOTEL
Denver, Colorado

COMMUNITY IMPACT

Recommendations:

1) A formal coordination mechanism should be established through one federal office for all federal programs which could help communities impacted by energy exploration and development. Appropriate federal and state statutes dealing with impact should be computerized and readily available to local, state, and federal officials.

2) We oppose federal legislation that would not allow states to set their own level of severance taxes.

3) State and local governments should have primary responsibility for management of impact problems.

4) Local units of government should be encouraged to establish local mechanisms (such as task forces and energy development boards), broadly representative of all interested public and private sector parties, to review and deal with the problems of impact from energy development.

5) Where appropriate, industry should be required to commit assistance to local communities to deal with impact problems in advance of final decisions of plant siting. (Adopted by 5-3 vote)

6) Funding for planning ought to be available to local communities in advance of exploration and development. (Adopted by 7-1 vote)

7) State and local officials must share in the planning of federal projects in energy exploration and other developments that directly impact their localities.

8) Front end money is essential to impacted communities for services (police, fire, transportation, planning, etc.) and capital construction (sewer, roads, schools, water, etc.) whether from loans or bonds or grants or severance taxes but should not depreciate the local government tax base when the energy development facility is operating.

All recommendations were adopted unanimously unless otherwise indicated.

ENERGY AND THE ECONOMICALLY DISADVANTAGED

Recommendations:

As a result of four hours of testimony and questions and answers by participants, this workshop developed 30 recommendations. The following were abstracted from those 30 recommendations for presentation to and consideration by the Town Meeting. These recommendations are directly susceptible of state legislative action or concern.

a. There is a need for a massive long-range weatherization program for every residence in America by 1990. This program should address rental property as well as home owners.

b. Manpower for weatherization programs should not be limited to CETA personnel. The need is to hire and retain qualified workers to undertake this program.

c. Block Grant programs to the states are recommended because such programs provide the greatest flexibility to the states in designing effective energy programs.

d. The present poverty level is 125%. We recommend that this be raised to 150% poverty level for energy assistance and 175% for the elderly.

e. States have been depending on federal dollars for energy assistance. We recommend adoption of a formula of 85% federal dollars/15% state dollars for energy assistance programs funding.

f. PURPA requires state hearings on innovative rate structures. These hearings should be conducted and completed in a reasonable and judicious period.

g. Service charges should be eliminated for all rate payers. These are especially burdensome to the poor and the elderly.

h. As per DOE's charter, the state intervention unit should be activated immediately, as the states need the expertise which can be provided by this federal resource.

i. Legislatures should enact legislation which will exempt all energy assistance monies from being added to the total income of those who receive AFDC, SSI, and other related payments.

j. Despite the present energy crisis, there remains significant numbers of citizens unaware of its seriousness. States must increase public awareness programs about the nature of the crisis, conservation techniques, and governmental assistance programs available.

Energy and the Economically Disadvantaged (Continued):

k. State legislatures must become directly involved in evaluation of the 1979 experience as a basis for designing innovative state programs.

l. States should provide "intervener groups" with a source of funding to retain expert assistance in interventions into state rate structure and other energy regulatory proceedings. AKPIRG

LICENSING AND PERMITTING

Recommendations:

1) Whereas, the regulations promulgated by the Office of Surface Mining to implement the Surface Mining Control and Reclamation Act of 1977 undermine the intent of the Act, which was clear in giving states "Primacy" to develop their own plans; and

Whereas, the Office of Surface Mining has usurped that congressionally mandated authority from the States by issuing regulations so overly specific that states must produce exact duplicates of the federal regulations to get a state plan approved; and

Whereas, U.S. Senate Bill 1403 (S.1403) would free states from the voluminous rules and regulatory overkill that have severely stifled the coal industry from needed energy development; and

Whereas, S.1403 does not nullify the 115 environmental protections in the 1977 law, but instead merely restores to the states the flexibility to produce their own tailormade plans--a provision specifically mandated by Congress in the Act.

Therefore, be it resolved that the Legis/50 Town Meeting on Energy supports S.1403.

2) Whereas, there is an immediate need to develop energy projects so that the United States may free itself from dependence on foreign oil; and

Whereas, the constantly changing and confusing array of regulations make the siting of energy projects almost impossible or, at best, a very long-range undertaking; and

Whereas, recent studies have indicated that state laws and regulations are not the cause of delays, but that federal inability to implement them in a timely manner have been the major problem; and

Whereas, bills now pending before Congress would give to an Energy Mobilization Board the authority to override substantive state and local laws; and

Whereas, granting such authority to an unelected, single-purpose federal agency would raise serious constitutional questions about the future distribution of authority and responsibility among the three levels of government;

Therefore, be it resolved that the Legis/50 Town Meeting on Energy opposes any Energy Mobilization Board with the power to override state and local laws.

Be it further resolved that this resolution be forwarded to the U.S. Congress Conference Committee on S.1308 and H.R. 4985.

Licensing and Permitting (continued):

3) Be it resolved the Legis/50 Town Meeting on Energy endorse the concepts of the Colorado Joint Review Process on Licensing and Permitting and recommend that a similar process be adopted by all state legislatures.

4) Whereas, the need for flexibility in meeting the energy crisis facing this country is paramount; and

Whereas, one of the fundamental strengths of the federal system is the ability to utilize the varying capabilities of the fifty states in solving their distinct problems, as well as to experiment with alternative approaches to solving common problems.

Therefore, be it resolved that the Legis/50 Town Meeting on Energy believes it is time to put a halt to the practice of unilaterally adopting and enforcing substantive environmental standards and procedural requirements, irrespective of their possible effects on energy policy objectives and the economy, while subjecting any proposed energy development activity to the burden of proving that no harm will be done to the environment as a result of such activity under the force of such standards and procedures, and the Legis/50 Town Meeting on Energy urges the Congress and the administration to conduct a thorough review of any and all applicable policies, statutes, and regulations to ensure that they are consistent, to the maximum extent possible, with the attainment of this nation's stated energy policy goals.

Be it resolved that the Legis/50 Town Meeting on Energy commend the Environmental Protection Agency in its initiatives taken to streamline their permit procedures and encourage other government agencies to do likewise.

5) Be it resolved that each state legislature examine its substantive and procedural laws relating to energy and environmental permitting and revise those statutes where appropriate to:

a) Streamline and make uniform its procedural standards;

b) Simplify and make uniform the judicial review of permitting decisions;

c) Place in being a legislative committee to oversee actions or inactions by each state's executive branch; and

d) Require a central information point and cooperative permitting procedures involving both state and local government.

ENERGY EMERGENCY LEGISLATION

Recommendations:

1) State legislatures should enact energy emergency legislation. We recognize that each state is unique and that each state legislature should fashion the emergency legislation to meet its unique needs.

2) All state legislatures should encourage the development of energy sources other than petroleum.

ENERGY TRANSPORTATION

Recommendations:

1) Whereas, the Committee on Energy Transportation of the Town Meeting of State Legislatures did not have the opportunity to discuss mass transporation; and

Whereas, the committee believes the issue of transporting people and commodities is vital in developing a comprehensive energy program;

Therefore, be it resolved that the delegates support the Committee on Energy Transportation in expressing its disappointment that the issue of mass transportation was not included in the agenda for the meeting.

Be it further resolved that future meetings of this nature include the study of this vital issue.

2) Whereas the issues of transportation related to the future of energy independence for the United States are complex and multi-faceted; and

Whereas, the Committee on Energy Transportation concentrated on defining the future problems of transporting energy resources such as coal, natural gas and oil; and

Whereas, the committee found there are substantial problems facing this country regarding the development of alternative and sufficient sources of transportation;

Therefore, be it resolved that the Legislative Town Meeting on Energy supports the following:

a) The efforts of the Department of Energy in developing a plan for transporting energy resources, and

b) The development of state energy resources transportation plans in conjunction with the Department of Energy. State plans should consider the following issues:

--Implementation of low cost solutions to community impact problems caused by increased rail traffic and further evaluation of high cost solutions including the method of financing these solutions.

--Expansion of viable competitive resource delivery systems to be in place by 1990.

--Evaluation of highway improvement needs to meet the transportation requirements.

c) Cooperation between the Department of Energy and the states in providing effective means to evaluate and comment on the impact of Department of Transportation and Department of Energy plans on local communities.

NUCLEAR WASTE MANAGEMENT

Recommendations:

1) Given our country's unacceptable dependence on imported oil, nuclear energy and all other energy source alternatives must be considered indispensable components of U.S. energy policy in the pursuit of national energy self-sufficiency.

2) Congress should enact legislation which will permit the federal government and any state to become full partners through negotiated agreements for determining the process, timetable and impasse procedure to site repositories for the storage of high-level radioactive wastes. The above consultation and concurrence process shall not apply to the siting of repositories for high-level radioactive wastes produced at national defense facilities.

3) Preferably, political considerations should not dictate where nuclear waste facilities are constructed. Rather to best protect the public, facilities should be sited only in locations which are supported by an established record demonstrating geological soundness and environmental acceptability.

Regardless of the future of nuclear power, the fact that large amounts of radioactive nuclear waste exist in solid and liquid forms, from both military and commercial sources, requires that all necessary decisions be made as soon as possible to expedite resolution of the nuclear waste problem. The Department of Energy, Nuclear Regulatory Commission, the President and Congress are urged to act expeditiously in selecting the appropriate technologies, and to fund the necessary programs to solve this problem.

If an agreement cannot be reached between a state and the Department of Energy, recognizing the Nuclear Regulatory Commission's statutory licensing authority, Congress, the courts or some independent review authority should resolve the impasse within 60 days after the failure to agree is formally certified by the parties involved.

4) It is essential that technologically suitable sites be identified formally by the U.S. Department of Energy as soon as possible in conjunction with consultation and concurrence with the states involved.

5) It is recommended that the National Town Meeting endorse action taken by the U.S. Senate Energy Committee on Dec. 10, 1979 giving the federal government one more year to come up with a plan for long-range disposal of nuclear wastes.

The U.S. is a federal system, and we must remember Rights of the sovereign states. In Alaska we have chosen not to pursue the nuclear option.

~~Does it~~

Is the delegate from Maryland willing to site nuclear waste in his state?

SYNTHETIC FUELS

The Committee on Synthetic Fuels did not develop recommendations for the Town Meeting on Energy.

UTILITY POLICIES, CONSERVATION, AND EMERGING TECHNOLOGIES

The Committee on Utility Policies, Conservation, and Emerging Technologies did not develop recommendations for the Town Meeting on Energy.

ATTACHMENT A

SMALL-SCALE HYDROELECTRIC POLICY REPORT FOR ALASKA: PRELIMINARY LEGISLATIVE OPTIONS AND RECOMMENDATIONS

Prepared for the Alaska
Joint Special Committee on
Renewable Energy Policy

Energy Program-Small-Scale Hydroelectric Project
National Conference of State Legislatures
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Alaska Policy Report

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I. Introduction

The National Conference of State Legislatures (NCSL) Small-Scale Hydroelectric Policy Project is working with the Alaska Legislature in a review of small-scale hydro policy issues. Project activities were initiated in August, 1979 with a staff visit to Juneau to brief the Joint Special Committee on Renewable Energy Policy about the Small-Hydro Technical Assistance Program and to conduct in-state field research. Following this meeting, the staff assisted the committee in conducting a meeting in Anchorage on September 13, 1979 to identify the issues the committee would consider. Persons from a diverse range of backgrounds and interests participated in this meeting.

On September 14, 1979, the committee and NCSL staff agreed to a workplan outlining the issues that would be studied and laying a future course of action for committee meetings. A copy of the workplan is attached to this document.

This policy report represents the initial research requested by the committee on issues identified in the state workplan. The policy options and recommendations are intended to serve as a base for the formal development of legislative policy on these issues through their discussion.

II. WATER LAW

Introduction

Four issues were identified in the State Workplan for analysis by NCSL: the potential impact of "grandfathered" riparian rights; the potential impact of federal "reserved water rights"; streamflow maintenance; and integrated water management. The following describes the results of NCSL research on these policy concerns.

Riparian Rights

The 1966 Water Use Act[1] recognized the validity of certain existing water uses,[2] including riparian[3] mining claims. To the extent that such unrecorded "grandfather" rights exist, concern has been expressed regarding potential constraints on small-scale hydro development. It appears, however, that the problem may be administratively resolved under existing statutory authority.

The Water Use Act included a provision[4] that claimants to existing water rights must file a declaration of appropriation within a finite filing period. The proposed Water Management Regulations[5] set out such filing schedules. Claims not filed within the specified periods are extinguished.[6] Thus, a mechanism has been proposed which will allow determination of the extent of "grandfather" water rights, thereby removing an area of uncertainty regarding small-scale hydro development.

Federal Reserved Water Rights

Concern has also been expressed over the extent to which Indian[7] and other federal[8] "reserved water rights" might impact small-scale hydro, especially with regard to maintenance of streamflows. Water reservations pursuant to the creation of a federal enclave (e.g., a national monument) do not extend to stream flow maintenance for general environmental and aesthetic purposes.[9] Moreover, such claims are subject to state court jurisdiction[10] via the McCarren Amendment.[11]

The situation is less clear with regard to Indian water claims. Reserved Indian water rights (Winters Doctrine) also are subject to state court adjudication,[12] but Alaskan Native[13] water rights may be "aboriginal" rather than "reserved" (i.e., pursuant to the establishment of a treaty reservation). However, federal land withdrawal pursuant to the Alaska Native Claims Settlement Act of 1971, may be an analagous situation.

These matters have been litigated in Alaska.[14] The Alaska Superior Court for the Third Judicial District found that there has been no Congressional recognition of aboriginal title in Alaska[15] and that in any case, the Winters Doctrine "does apply to...water held by Alaska Natives under aboriginal title...[16] Thus, it appears

that Alaskan Native water claims will be subject to state court adjudication and quantification, thereby ameliorating the expressed concern regarding small-scale hydro development.

It should be noted in this regard that there is no reason to anticipate frequent conflicts between small-scale hydro developers and Alaskan Native Corporations (ANC's). Given the lack of a power transmission grid in Alaska, it is not likely that small-scale hydro developers will seek to develop remote sites adjacent to ANC's in order to transmit the power elsewhere. In fact, ANC's will be the likely beneficiaries of nearby small-scale hydro projects, which may often be developed as a joint venture. Thus, the potential for conflict over water rights may not be very significant.

Stream Flow Maintenance

The Department of Natural Resources, through its Division of Forest, Land and Water Management has the authority to attach conditions to water rights permits.[17] Under the proposed regulations, such conditions may include a reservation of stream flow[18] at specific points or stretches for specific periods or throughout the year. Such reservations are made in the public interest, including for the protection of fish and wildlife.

HB118, introduced in the last session, would have allowed stream flow reservations independent of water rights applications, as well as providing guidance with regard to a hierarchy of uses and cost-benefit analysis. Such legislation has general support from the Water Management Section and should be reconsidered during the upcoming session.

Integrated Water Management

There are numerous agencies in Alaska with an interest in water management, including planning, construction and permitting agencies. The Departments of Fish and Game, Natural Resources and Environmental Conservation have reached a cooperative agreement regarding their respective authorities (attached). Such inter-agency consolidation and cooperation should be pursued in the comprehensive review of water policy scheduled to begin in July, 1980. NCSL stands ready to assist in this effort and to submit recommendations to implement its conclusions.

Water management planning is Alaska has suffered from inconsistent funding. The Water Resources Board has recommended a shift to capital improvement funding. Its resolution is attached for legislative consideration. In addition, there exists a huge backlog of water applications waiting to be processed. Adequacy of funding and staff to reduce this backlog is of primary importance in order to facilitate efficient water and energy development in Alaska.

ADDENDUM

In regard to conditioning water permits in order to maintain stream flow, the power to continue such conditions upon the granting of a certificate of appropriation is unclear. According to the Water Use Act (§ 46.15.120), a certificate will be granted if the appropriation has been perfected in accordance with the permit conditions and may contain such "information" as may be prescribed by regulation.

HB 186, proposed during the 1979 session, would clarify this situation by amending the Water Use Act (§ 46.15.120) to explicitly authorize the attachment of conditions to certificates of appropriation. This legislation has the general support of the Water Management Section and should be reconsidered during the 1980 session.

FOOTNOTES

[1]46.15 AS

[2]46.15.060 AS

[3]Riparian water rights are derived from ownership of land immediately adjacent to a source of water

[4]46.15.135 AS

[5]11 AAC 93 (1979) - proposed

[6]11 AAC 93.020

[7]Winters v. US 207 US 564 (1908)

[8]Arizona v. California 373 US 564 (1962); Cappaert v. US 426 US 128 (1976)

[9]US v. New Mexico 564 P. 2d 615 (1977) aff'd 438 US 696 (1978) It should be noted that the decision in this case related to a National Forest established pursuant to the 1897 Organic Act. A different result may be reached regarding National Forests established subsequent to the 1966 Multiple Use Sustained Yield Act.

[10]US v. District Court for Eagle County 401 US 520 (1971)

[11]43 USC 666

[12]Colorado River Conservation District v. US 424 US 800 (1977)

[13]including Eskimos, Aleuts and Indians

[14]Paug-Vik, Inc. v. LeResche No. 77-17158; Superior Court of Alaska, 3rd District (1979)

[15]id., Conclusion of Law #20; see also Tee-Hit-Ton Indians v. US 348 US 272 (1954)

[16]id., Conclusion of Law #25

[17]46.15.100 AS

[18]11 AAC 93.120 (b)(1)

III. ENVIRONMENT PERMITS

Introduction

A hydroelectric developer in Alaska must obtain a number of state permits before he can commence construction of a project. (A list of applicable permits is included in Appendix A.) These permits are issued by several departments, including the Department of Natural Resources (DNR), Department of Environmental Conservation (DEC), Department of Fish and Game (DF&G), and Department of Transportation and Public Facilities (DOTPF).

Alaska has made great progress in streamlining the state licensing procedure via passage of the Environmental Procedures Coordination Act in 1977. This report discusses that system and specifies some legislation options for improvements of the system.

This report must be read against the background of possible federal pre-emption under the Federal Power Act. Although the U.S. Supreme Court has held the Act to be superior to state procedures, the Federal Energy Regulatory Commission (FERC) has adopted a policy that small-scale hydroelectric developers should comply with state licensing requirements prior to obtaining a federal license. Thus, Alaska's regulatory policies remain relevant to small-scale hydro.

Environmental Procedures Coordination Act (AS 46.35.010 et seq)

The Environmental Procedures Coordination Act (EPCA) sets forth the goal of streamlining the licensing procedures for any project requiring one or more of the permits listed in AS 46.35.200. The procedure establishes the DEC as the lead coordinating agency. A developer submits a master application to DEC, which the department then circulates among appropriate state agencies. Any agency asserting licensing jurisdiction must indicate which permits will be required. The DEC then transmits the relevant applications to the developer. When each permit application is completed by the developer, the DEC will transmit that application to the appropriate agency.

After all permit applications are complete, the DEC will publish notice in a newspaper concerning the project. Information from the public will be received via letter or public hearing. Federal and local government agencies may participate at the public hearing. Within 90 days following the hearing, all agencies must complete their determinations and the DEC will send the developer one document indicating the final decision of each agency.

Should the decision be negative, the developer may request an adjudicatory hearing. If the commissioner of the DEC finds that reasonable issues of fact or law are raised, the hearing will be scheduled, moderated by a hearing officer. At the hearing, the commissioner (or his designee) for each agency which rendered final

decision will review the subject matter applicable to that agency. The commissioner (or designee) may affirm or modify the prior decision. Should the developer remain unsatisfied, he may appeal to the superior court.

EPCA states than although all the permits may be granted, a final decision will be withheld if the developer does not possess the necessary land and water rights. Also, a final decision will be withheld if local government officials do not certify that the project conforms with local ordinances or comprehensive plans (or that such ordinances or plans are not applicable).

Present activities to improve EPCA

In order to improve EPCA, the DEC has compiled Directory of Permits for the state, giving a brief description of the criteria for issuance and subject matter for each permit. This Directory includes more than the list of permits in EPCA, and is an attempt to produce a comprehensive compilation of all state, federal and local permits. The most recent update to the Directory will be available in November, 1979.

The Department of Commerce and Economic Development (DC&ED) is in the process of preparing a Procedures Manual which will include a set of master lists of necessary permits, dependant upon type of project. The manual will also include a description of the necessary procedures relevant to application for a particular permit.

Lastly, the DEC has prepared a set of master lists of necessary permits which is used by DEC. As each project proceeds, the DEC maintains a record of necessary permits, and supplements each list with information furnished by the developer.

Legislative Options and Initiatives

As a result of the NCSL and Joint Committee on Small-Scale Hydro sponsored public workshop, as well as subsequent NCSL field research, several problem areas and possible options regarding EPCA have been identified, including:

1. Does the list of permits contained in EPCA provide a complete set of applicable permits for the small-scale hydro (SSH) developer?

The coordination role of the DEC is limited by statute to those permits specifically included in the EPCA, as well as any additional permits designated by the commissioner. However, it appears that some permits listed in the EPCA are no longer applicable, while other permits not listed are of importance. One approach would be to give the DEC the authority to coordinate "...all permits contained in the Directory

of Permits..." Such a mandate should direct all state agencies to enter the coordinated process. It should be remembered that additional staffing and funding may be required to insure DEC effectiveness.

One consideration regarding inclusion of agencies is whether the Public Utilities Commission should be included in the EPCA process. Primarily, the permits included in EPCA relate to environmental concerns, while the PUC is concerned with the development of Alaska's utility system. The legislature should examine whether it considers the respective policy considerations for these subject areas sufficiently similar to warrent inclusion of the PUC in EPCA. Also, the legislature should consider whether convenience to the developer in the case of small-scale hydro would be fostered by inclusion or exclusion.

2. Would pre-application meetings facilitate the licensing process?

The DEC has informally conducted pre-application meetings between a developer and applicable state agencies before a master application is submitted. This meeting tends to promote communication between the developer and agencies and allows the agencies to express concerns or reservations at an early stage. The legislature may wish to consider whether or not to formally require such a service to be available.

3. Are there conflicts and ambiguities between the EPCA and other statutes?

There are a number of areas where the procedures of the EPCA conflict with other statutes, generating unnecessary confusion. For instance, the notice requirements of some permits are dissimilar from those of EPCA, in terms of time limits, number of publications, proper paper for publication, and financial responsibility for publication (developer or agency). Also, some legislative mandates to the agencies require interagency determinations regarding some permits, but these are not provided for in the EPCA. The legislature should consider revisions to eliminate these conflicts.

4. Are public interest groups sufficiently involved in the EPCA process?

Public interest groups are not specifically included in the EPCA process. They may participate at the public hearing, but by this time the developer has completed a master application as well as all permit applications. One option would be to involve public interest groups at initial stages of the process. For instance, DEC might identify such groups and suggest to the developer that he contact them at an early stage.

5. Should state agencies be prohibited from intervening in the FERC licensing procedure?

It appears that state agencies may intervene in the FERC licensing procedure, and air complaints and reservation at that time. Thus, an agency can avoid participation in EPCA, and still intervene later at the FERC level. This effectively negates the goal of the EPCA that all interested agencies make their determinations in the EPCA process. The legislature may wish to prohibit state agencies from participation in the FERC process if that agency failed to participate in the EPCA process. Alternatively, the legislature may wish to prohibit any agency from intervention at the FERC level, mandating all state discussion occur within the EPCA process.

6. Should Alaska parallel the FERC criteria for short form applications?

Under the FERC licensing procedures, facilities at existing dams of less than 1.5 Mw capacity recieve a streamlined treatment. Also, facilities at existing dams of 1.5Mw to 15 Mw can use a short form application. The legislature should consider whether Alaska should parallel these criteria in its licensing procedure, and provide an abbreviated procedure for qualifying sites.

7. Should there be a Master Application with all relevant questions, rather than a series of permit applications?

Under the current system, the master application is really designed to provide sufficient information so that an agency can determine whether a particular permit is necessary. The legislature should consider whether a Master Application could be designed which would include all relevant information, thus allowing a developer to deal with only one application rather than many.

Also, the legislature may wish to consider adoption of a General Permit for a class of activities. Such a permit would allow several activities related to a type of enterprise with attendant conditions as specified by the administering agency. For instance, there might be one Hydroelectric Permit, or several classes of Hydro Permits, including Small-Scale Hydro and Large-Scale Hydro, distinguished by power characteristics.

8. Should central authority for a final determination be given to one lead agency?

The DEC is presently given the role of central coordination, but does not have final authority for a decision. Under a lead agency system, one agency would listen to the views of the other and then make an independant decision.

Such a lead agency might perform a function which is absent in Alaska's system. That function is to compare the overall social, economic, environmental, and energy costs with the overall social, economic, environmental,

and energy benefits of a project. Each agency now examines a particular facet of a project, but no one agency makes an overall evaluation weighing all the factors in balance.

If a lead agency system is chosen the role of the DEC should be reexamined. The DEC has a primary mandate of ensuring environmental conservation, and might be in a conflict situation if it also attempted to weigh all other costs and benefits. Perhaps an existing planning agency within the DC&ED, such as the Division of Energy and Power Development, could best perform this role. Alternatively, an Energy Facilities Siting Committee could be created. Development of a comprehensive State Energy Plan would facilitate this type of approach.

This system would have certain advantages and disadvantages compared to the present system. In terms of advantages, it could resolve any interagency conflicts which had arisen, and would offer a larger perspective than that of the individual agencies. It would have a legislative mandate to make an overall evaluation of the project. It would also facilitate the FERC licensing process because it could present the FERC with a uniform view (i.e., the State of Alaska has approved this project with the following conditions and requirements) and allow the FERC to only deal with only one state agency.

This sytem poses the disadvantage that it will conceivably overrule another agency which has more expertise. The present agencies possess a great deal of technical knowledge in their subject area, and it would be unfortunate to have an agency with less knowledge of the subject matter in a position to override a decision. Also, due to political realities, such a system might produce interagency tension and distrust, and utimately be less effective.

9. <u>Should a Joint Interim Committee be established to study these and other recommendations?</u>

Some of the options outlined above will require detailed research before the legislature can properly amend statutes. For instance, study of EPCA conflicts vis-a-vis other statures (No. 3) requires an in-depth analysis of present law. The possibility of a Master Application (No. 4) requires careful drafting to insure that all relevant information is included. The legislature may wish to create a Joint Interim Committee to study those options which the legislature finds most interesting. Staffing and funding should be provided, with a final report from the Committee presented to the legislature at a given time (6 months to 1 year).

IV. FINANCING

INTRODUCTION

The purpose of this set of options is to provide the Alaska Legislature with various methods for stimulating renewable energy resource development. Numerous options have been suggested for modifying the authority of some existing developmental and funding entities and for securing additional development funds. Our selections for accomplishing these purposes are designed to provide for the least amount of change to the existing state structure and/or to serve special needs that currently are not being met.

To accomplish the purposes identified, some degree of state subsidization may be required. Generally, a subsidy is any non compensated transfer of resources from the state treasury. An example of state subsidization is where the state provides direct financing for projects at interest rates below the market rate because such projects are viewed as beneficial to the state's interest.

Constraints should be imposed on any form of state subsidization program to insure that the least cost methods of achieving the desired end is selected and that the degree of subsidization is limited to that desired by the legislature.

There are various methods of achieving this result, two of which are discussed in this report. One method is to insure the feasibility of projects by considering the best alternative for the desired purpose. This may be accomplished by having the project size limited to match a reasonable forcast of end-use demand. A second check is provided by insuring that project financing costs

are minimized by enabling the utilization of financing economies of scale, requiring the selection of the most appropriate method of financing for each project and directing that project subsidies be limited to those necessary to enable the construction of a particular project.

OPTION NUMBER 1 Renewable Resource Planning and Demonstration

The Renewable Resource Planning and Demonstration Option is not designed to provide for actual development of a particular project. Under this option, the Legislature would be responsbile for conducting oversight responsibilities specifically geared to requiring action by the Alaska Renewable Resource Corporation in the exercise of their project demonstration and technical assistance functions. In addition, this option calls for the legislature to expand the current responsibilities of the Alaska Power Authority.

The Alaska Power Authority (APA) and the Alaska Renewable Resources Commission (ARRC) could be given a comprehensive planning function. The plans, submitted annually or more frequently to the Governor, Legislature and Department of Commerce and Economic Development, should detail present use and future projections for the use of renewable resources throughout the state.

In addition to planning, the APA could be authorized by appropriate legislation to engage in demonstration projects involving renewable resources. These projects could be financed through legislative appropriations. The ARRC presently has the authority to conduct demonstration projects. An annual or semi-annual reporting requirement may also be appropriate here. The reporting requirements

for demonstration projects should include: technical performance data, costs, and potential commercial application of the demonstration projects; projections of the technology's future contribution to energy supply for each renewable resource; and, projections as to how each renewable resource demonstrated will match end-use demand under various geographic situations, could be required.

This option would have little effect on the status quo from a financial perspective, while at the same time would be providing the Alaska Legislature and Governor, as well as prospective developers, with technical information and comprehensive planning. The planning aspect would be of particular benefit to the State in its attempt to develop a comprehensive energy plan and would insure that renewable resources were appropriately included.

OPTION NUMBER 2 Alaska Renewable Resources Development Corporation

This option would provide the Alaska Renewable Resources Corporation with developmental authority specifically for renewable resources technology projects, and/or for a liberalization of their current loan restrictions. This action would obviously require a change in the legislative charter of the Corporation. The Alaska Renewable Resources Corporation presently has the authority to sponsor research and development of renewable resource technology and to assist in demonstrating their technical and economic feasibility. (ALASKA STAT. § 37.12.010 [1978]). The existing Alaska Renewable Resources Corporation may also loan money to developers under specific circumstances.

Either instead of, or in addition to, granting the Corporation developmental authority, many of the loan restrictions which currently are in effect could be eliminated or modified. For example, loan periods are presently limited to thirty years unless the legislature approves the loan by concurrent resolution. The Corporation could be given discretion to increase the loan retirement period for projects which could justify the need for such longer period.

An increase in the maximum amount per loan could also be permitted. Presently, the per project limit is set at five percent of the resources of the Corporation or $1,500,000, whichever is less.

Both of these suggestions are desirable for stimulating renewable energy resource development. Most of these projects (hydroelectric projects for example) are very capital intensive and will frequently require loans in excess of the maximum limit. Additionally, many potentially valuable renewable energy projects will require a payback exceeding 30 years.

There presently also exists a limit on the percentage of outstanding corporate stock in any one project which may be held by the Corporation without legislative approval. To provide maximum development flexibility to ARRC, this limitation could be removed.

OPTION NUMBER 3 Exemption of Small Scale Renewable Resource Projects Developed or Financed by APA From Legislative Approval

The APA has board authority to develop generating and transmission facilities in Alaska. However, projects, without regard

to size, are subjected to legislative approval. This option is designed to exempt renewable resource projects either developed directly or financed by the APA from legislative approval.

The statutes under which the APA operates would have to be amended to achieve this objective. The exemption could be provided for APA projects of: a limited dollar amount, limited output capacity, or limited to a reasonable forcast of a particular project's end-use demand capacity.

This exemption would be provided by the APA upon a determination that all the requirements of technological and economic feasibility which the APA must currently consider are met. The reasoning behind the exemption is that renewable resource projects of a small scale nature should not be delayed for the period of time requried for legislative consideration and approval.

The APA could also be given the authority to issue general obligation bonds, pledging the full faith and credit of the State. This additional bonding authority would round out the APA's financing flexibility. Of course, general obligation bonding would not be appropriate for all APA projects, but could be useful for some, since it should enable a slight saving over revenue bond rates.

Presently, the APA is required to submit details of proposed projects to the Governor to assure that all projects built conform to the Alaska comprehensive energy plan. The energy plan has not been completed and will not likely be so in the near future. A procedure for consultation rather than a requirement for approval from the Governor's Office would, at this point in time, appear to

be more appropriate. This consultation procedure would insure that projects undertaken by the APA will be incorporated in the final energy plan without burdening the APA with the uncertainty and delay in the current process.

As mentioned earlier, the APA has been delegated broad authority by the Legislature to engage in electric generation and transmission projects. It appears, however, that the special opportunities available to the APA have not been fully utilized. This appears to be largely a funding and autonomy problem. It would seem that the ability of the APA to accomplish its intended purpose would be enhanced by according the agency the independence and discretionary authority consistent with the original recognition of its expertise. Thus, in addition to the above suggestions, the APA would benefit from a general appropriation. Legislative control could be assured through the normal continuing exercise of legislative oversight over APA activities and some form of annual review and audit.

OPTION NUMBER 4 Establishment of a State Development Agency Using the Rural Electric Authority Model

The main purpose behind adoption of a State REA model is to provide for the development and funding of projects for areas of the State of Alaska which are either presently not receiving electricity, or are not adequately receiving such power. Since many areas in Alaska are not located near generation and distribution facilities, individual projects designed to meet the needs of such areas are necessary. Since the Alaska Power Authority has the power to develop projects in any area of the state, this proposal

is intended to supplement, not replace, the Alaska Power Authority.

Another purpose behind the adoption of a Rural Electric Authority (REA) model in Alaska is to serve some of the needs not being met by the Federal REA program currently in effect in Alaska. One of the most significant problems of the Federal REA program is that of limited funds available to state REA's and the substantial nationwide competition for those funds. Since this option is not designed to substitute the use of Alaska revenues for those provided by the federal programs, but only supplement the federal program, it may be desirable to stipulate that those projects apparently eligible for Federal REA funding attempt to acquire such funding before approval under the state program.

I. Authority

The initial step is to design a structural framework which would be suited to Alaska. The Federal Rural Electrification Act of 1936, as amended, (7 U.S.C. § 901 et seq. [1977]), and the Alaska Electric and Telephone Cooperative Act would provide a model for developing such a system. The Federal REA statute would provide a model for the state level Authority, while the Alaska REA statute would provide guidelines for establishing local cooperatives. Needless to say, both these statutes would have to be revised to meet the specific needs of Alaska but they should be consulted for structural guidence.

II. Financing the State REA

Providing the State Rural Electric Authority with financing sufficient to carry out the purposes of the enactment can take place in a number of ways. First, the Legislature may want to make

a direct appropriation from the general fund or other identifiable source of state revenues such as the Alaska permanent fund.

A system of loan advances could be made by the State Treasury from either the general fund or the Alaska permanent fund. These loans could be made providing for a set or accelerating interest rate, a deferred system of interest payments, or for no interest. In determining the interest amount, the current market rates could be used or the legislature could provide an interest subsidy, which would be any amount less than the market rates. The loan period could also be established by statute with or without a provision for extentions.

A revolving loan fund could also be set up, similar to the Power Project Revolving Fund, in the State Treasury. Capital and interest payments made by the individual cooperatives would be paid into this fund for later use by the State REA.

Another option would be to grant to the State REA bonding authority with the state pledging a guarantee on the bonds.

III. Cooperative Membership

Membership necessary to form a cooperative could be designed to accomodate the legislature's perception as to whom the benefits of the Act should inn.re. One possibility would be to have the Act available to all interests.

An alternative would be to specify those entities who would be qualified under the Act. The selection could include individuals, groups of individuals, all industries or specific industries, municipalities, boroughs, tribes, etc., or any combination of these or others.

Minimum limits as to the number of individuals necessary to create a cooperative may be desirable to assure future accountability. A maximum limit of inhabitants in an area may be imposed so as to insure the benefits of the Act are limited to rural or isolated areas as consistent with the purpose designed to be served by the Act.

IV. Cooperatives - Terms of Assistance and Amounts

The legislature may, for any one project or other cooperative undertaking, desire to place a maximum limitation on the amount which may be disbursed from the State Authority. The State Authority may be granted the appropriate authority by the legislature to distribute funds to the cooperatives in a variety of ways or combinations.

One possibility would be for the State Authority to issue direct loans to the cooperatives at an established interest rate based on market rates or in an amount less than the market rates. Deferred payment may also be desired. It is worth pointing out at this point that any interest rate on loans or other form of assistance which is not equivalent to the outside market rates is in fact a subsidy. Therefore, in establishing a set interest rate below the current market rate the legislature should consider what the market rates are at the time the rates are established so as to identify the extent of the subsidy provided.

Providing grants for projects meeting certain criteria may be available for allocation by the Authority. These grants could be established for feasibility studies, construction, or operation and maintenance.

To attract outside investors, the State REA may be given the authority to guarantee loans. Such guarantees may provide for a pledge of the Authority's appropriations or mortgages or the legislature may provide that the Authority be permitted to pledge the full faith and credit of the state or the general fund or permanent fund specifically.

Guaranteed loans should provide the cooperatives, assuming the project contemplated is otherwise economically feasible, with lower interest loans. Outside investors will also be more likely to invest in cooperative activities with a pledge of the credit of the state insuring repayment.

Another method would be for the State REA to subsidize a percentage of the interest payment on money financed from outside investors. This method could be expanded to provide a subsidy on not only a percentage of the interest, but also on the capital invested. One benefit associated with subsidizing some percentage of the interest on the project's debt is that the merits of the project have been evaluated by the market system prior to application and the precise subsidy necessary to finance the project may be identified and the subsidy limited to that amount.

A loan schedule should be established for cooperatives to undertake feasibility studies. Loans for feasibility studies should be forgiveable in the event the project is not built. Some threshhold criteria for eligibility for feasibility study loans could be established by the State REA to insure these funds are optimally used.

V. Standards for Review of Project Loans

Special consideration must be devoted to developing standards of review prior to the granting of project loans if renewable resources are deemed a priority for development. Given the capital intensity of most renewable resource projects short-run cost comparisons are ill suited. However, some comparison of alternatives should be made.

Projects proposed by cooperatives should be evaluated considering the best alternative over a period of years. The Federal REA has set the period for comparison purposes at ten years. Due to the high initial cost of renewable resource projects the period used for comparison purposes may need to be extended. Also, a reasonable fuel escalation factor should be used in determining the operating expenses of fossil fuel plants considered as alternatives.

Projects should also be evaluated based on their compatability with end-use demand, determined by the use of appropriate established forcast methodologies. The methodologies to be used could be established through the promulgation of rules by the Administrator of the State REA. These procedures would insure continuity in evaluating the alternatives.

VI. Qualifying Projects

Many options are available to the legislature in establishing what will be deemed a qualifying project. For instance, the legislature may desire to define a qualifying project as any project which will produce power or energy or used to transport energy. This could be construed to include all types of generating and trans-

mission facilities including the wiring of individual homes or industries. Numerous limitations could be written in to disqualify specific types of generating facilities and/or end-user benefits.

An alternative would be to limit the generation facilities covered by the program to renewable resources, including or excluding cogeneration projects. The types of projects covered under renewable resources should be specified.

As to either of the above definitions of qualifying projects, a size limitation could be adopted. The size limitation could be expressed in terms of megawatts or B.T.U.'s whichever is appropriate for the energy type.

V. FUTURE WORK

Due to time constraints on the NCSL staff, several items outlined in the workplan were not covered in this policy report. The areas of (1) Public Utility Regulation, (2) Insurance, and (3) Federal Interface will be addressed in a future policy report to the committee. Pending the committee's future needs on the issues presented in this policy report and those not considered yet, NCSL staff will prepare additional policy reports, policy options and recommendation papers, and bill drafts as requested.

VI. APPENDICES

A. List of state permits

B. State workplan

C. Resolution 79-8

D. Cooperative Agreement between Alaska Agencies on Environmental Conservation

E. HB 178

F. HB 186

Appendix A

The following is a list of state permits which may be required by a hdyroelectric developer. Some permits will apply to all sites; others are site specific. The reader is recommended to review each permit in detail in the Directory of Permits. The page number for each permit is included within the parenthesis, and refers to the March, 1978 edition of the Directory. These page numbers will probably be different in the newest edition of the Directory, due for release in November, 1979. As this list was compiled be use of the older edition of the Directory, the list may contain some discrepancies from present practice.

List of possible permits (some are site specific);

A. Department of Natural Resources (DNR)

1. Water rights - Water Use Permit (DNR-22)
   (Question as to status of vested riparian water rights)

2. Land use - proof of ownership or proper lease
   If land owned by State of Alaska,
   Leasing of Lands-Other Than for the Extraction of Natural Resources (DNR-10)

3. Miscellaneous Land Use Permit (DNR-12)

4. Right of Way or Easement Permit (DNR-14)

5. Special Land Use Permit (DNR-16)

6. Tidelands Permit (DNR-18)

7. Change or Vacation of Land Plat Approval (DNR-9)

8. Conditional Use Permit

9. Compliance with Soil Conservation Districts regulations

10. Compliance with Alaska Historic Preservation Act

If facility is within a state park, or has access or transmission routes through a state park, the following should be considered:

1. Access Route Permit (DNR-33)

2. Disturbance of Natural Material Permit (DNR-35)

3. Special Land Use Permit (DNR-39)

4. State Park Noncompatible Use Permit (DNR-40)

5. Field Archeology Permit (DNR-37)

B. Department of Environmental Conservation (DEC)

1. Air Quality Control Permit to Open Burn (DEC-1)
2. Air Quality Control Permit to Operate (DEC-4)
3. Discharge into Navigable Waters - Certificate of Reasonable Assurance (DEC-7)
4. Pesticide Permit (DEC-12)
5. Solid Waste Disposal Permit (DEC-15)
6. Surface Oiling Permit (DEC-15)
7. Waste Water Disposal Permit (DEC-25)

C. Department of Fish & Game (DF&G)

1. Anadromous Fish Protection Permit (DF&G-21)
2. Critical Habitat Areas Permit (DF&G-23)
3. State Game Refuge Land Use Permit (DF&G-24)
4. State Game Sanctuary Permit
5. Requirement of construction of fish ladders or hatcheries

D. Department of Transportation and Public Facilities (DOTPF)

1. Utility Permit for Encroachment within Highway Right-of-Way (DOTPF-9)
2. Encroachment Permit (DOTPF-11)
3. Driveway Permit (DOTPF-13)

E. Department of Commerce & Economic Development (DC&ED)

1. Public Utilities - Certificate of Public Convenience and Necessity (DC&ED-1)

F. Local

1. Certification of compliance with local zoning ordinances or comprehensive plans, or certification that there are no applicable requirements. (AS 46.35.130)

NATIONAL CONFERENCE OF STATE LEGISLATURES

ENERGY PROGRAM -- ALASKA
SMALL SCALE HYDROELECTRIC PROJECT

Study Areas

A. Environmental Permits
   - conflicting statutory mandates (public notice hearing)
   - mechanisms to implement ERCA not in place
   - consolidation of permits and hearings
   - establishment of agencies' response to pending permits for time deadlines

B. Water Law
   - investigate administrative resolution of the riparian question that is unresolved from the 1966 Water Use Act which adopted the appropriation doctrine for the state
   - joint resolution supporting federal quantification of reserved rights

C. Public Utility Regulation
   - raise annual business revenue exemption for regulation purposes
   - implementation of PURPA
   - analysis of cream skimming by non-regulated utilities in a regulated utilities service area

D. Insurance
   - examine authority of state to mandate pooled insurance

E. Financing
   - state REA funding concept utilizing a portion of the permanent fund use for low interest loans
   - alternate methods of providing feasibility assistance
   - development of discretionary funds for Alaska Power Authority
   - bond guarantee program
   - small-scale hydro tax incentives
   - investigate Renewable Resources Corporation potential for increased financial support to micro hydro

F. Federal Interface
   - development of memoranda of understanding with regard to the issue of federal jurisdiction in Alaskan projects where such jurisdiction is questionable

Staff Responsibilities Task	Staff	Status
Project Introduction	NCSL	completed
Issue Identification	Joint	completed
Research and Analysis	NCSL	in progress
Supplemental Field Research	Joint	in progress

- State staff will conduct interviews and provide support for in state research. State staff will also assist in contact coordination.
- Emphasis will be placed on the issue areas of financing and environmental permits for 1980 session.

Project Milestones	Staff	Status
- State Profile	NCSL	completed
- Options and Recommendations	NCSL	November
- Issue Papers	NCSL	November
- Discussion Bill Drafts	Optional	December
- Draft Legislation	Optional	December
- Commercialization Workshop	NCSL	Summer 1980
- Review of Proposed Legislation	Joint	December

NATIONAL CONFERENCE OF STATE LEGISLATURES

ENERGY PROGRAM -- GEOTHERMAL PROJECT
PROPOSED TECHNICAL ASSISTANCE PROGRAM

STATE OF ALASKA

Study Areas

A. Resource Characterization

- distinguish high & low temperature resources
  - temperature threshold
- confirm subsurface ownership separate from water right
- address water law interface
  - property implications
  - protection of existing rights & water quality
  - clarification of application to by product water

B. Resource Access

- simplified procedures for low-temperature uses
  - miscellaneous land use permit/water right
  - unregulated put. residential use/warer right
- substitute conforming use section for state withdrawals
- examine designation criteria & acreage limit (max.)
- adjust lower acreage limit for small-scale uses
- set deadline for mining claim diversion

C. Resource Allocation

- adopt firm policy with enforcement power
  - assign jurisdiction

D. Permitting

- remove overlapping jurisdiction re drilling
- distinguish regulation of high & low-temperature wells
- implementation of EPCA

E. Finance

- operator's incentives
  - state investment tax credit/property tax adjustment
  - deferral of royalties

- waive royalties for low-temperature use
  * implications of temperature threshold
- state loan/bond guarantees or certification
- mandated pool coverage of reservoir risk

- consumer's incentives
  - income tax credits
  - property tax exemptions
  - state/utility loan program (weatherization/TVA)

F. District Heating

- confirm public bonding ability (alternative heat sources)

G. Public Utility Commission

- investigate commission policies
  - discretion to exempt from rate jurisdiction
  - certification control
  - reliability control

Staff Responsibilities

NCSL energy staff, in conjunction with legislative staff, will identify issues, conduct research, analyze policy concerns, investigate administrative responses and prepare legislative proposals, as needed.

Tasks	Staff	Status
Project Introduction	NCSL	completed
Issue Identification	Joint	completed
Research & Analysis	NCSL	in-progress
Supplemental Field Research	Joint[1]	in-progress
Project Milestones		
- Policy Profile	NCSL	completed
- Options & Recommendations[2]	NCSL	12/79
- Discussion Bill Drafts	Optional	1/80
- Draft Legislation	Optional	2/80
Review of Proposed Legislation	Joint	1980

1- State Staff will conduct occasional in-state interviews and facilitate agency visits. Assistance of Geothermal Specialist in Div. of Energy and Power Development (State Energy Office) will be sought.

2- 1980 legislative proposals in selected areas only: leasing revisions, temperature threshold, DH, allocation, permitting, financing.

STATE OF ALASKA

JAY S. HAMMOND, Governor

WATER RESOURCES BOARD

Resolution 79-8

BUDGETING FOR WATER DATA COLLECTION

WHEREAS data on streamflow, precipitation, and groundwater levels is necessary for flood forecasting, public water supplies, hydropower, fisheries management, and water rights adjudication, and

WHEREAS proper statistical development of hydrologic data requires multi-year efforts due to seasonal changes in the hydrologic cycle and yearly or multi-year changes in climate patterns, and

WHEREAS state agency programs to collect hydrologic data have traditionally been funded from the agencies annual operating budget, and

WHEREAS shifting annual priorities or budget cutbacks have sometimes eliminated hydrologic data collection programs in mid-term, thereby negating thousands of dollars of effort and rendering the project valueless;

NOW THEREFORE BE IT RESOLVED that the Board recommends that hydrologic data collection which requires multi-year efforts, be funded through the Capital Improvement Program rather than annual operating budgets to assure year-to-year continuity as well as timely conclusion and reduction of funding when the project is completed.

Adopted August 8, 1979

Richard H. Sims

Richard H. Sims
Chairman

Appendix D

COOPERATIVE AGREEMENT

BETWEEN THE

ALASKA DEPARTMENT OF FISH AND GAME

AND THE

ALASKA DEPARTMENT OF NATURAL RESOURCES

AND THE

ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION

This Cooperative Agreement is made and entered into this 21st day of June, 1979, by and between the Alaska Department of Fish and Game, hereinafter referred to as Fish and Game, the Alaska Department of Natural Resources, hereinafter referred to as Natural Resources, and the Alaska Department of Environmental Conservation, hereinafter referred to as Environmental Conservation.

WHEREAS, Fish and Game is responsible for the protection, conservation, and management of fish and game within the State of Alaska pursuant to Title 16 of the Alaska Statutes, and

WHEREAS, Natural Resources is responsible for the management of public lands owned by the State of Alaska pursuant to Title 38 of the Alaska Statutes, and is responsible for the determination and adjudication of rights in the waters of the State, and in water appropriation and distribution pursuant to Title 46, Chapter 15 of the Alaska Statutes, and

WHEREAS, the Department of Environmental Conservation is responsible for water pollution control pursuant to Title 46, Chapters 3 and 7 of the Alaska Statutes, and

WHEREAS, the purpose of this Agreement is to provide for mutual cooperation and coordination among the three Departments with regard to water rights permits and certificates, anadromous fish permits, wastewater disposal permits and State water quality certifications;

NOW, THEREFORE, the three Departments hereby agree as follows:

FISH AND GAME AGREES:

1. To send Natural Resources and Environmental Conservation copies of anadromous fish permit applications and locational maps when they are received by Fish and Game.

2. To send Natural Resources and Environmental Conservation copies of anadromous fish permits when they are issued pursuant to AS 16.05.870.

NATURAL RESOURCES AGREES:

1. To send Fish and Game and Environmental Conservation copies of water rights applications, locational maps and public notices for surface and groundwater appropriations as required by AS 46.15.070(b) during adjudication by Natural Resources. All single family domestic applications of 1,000 gallons per day or less will be exempt from this notice.

2. To identify to Fish and Game and Environmental Conservation by a copy of the posting notice, grandfather water rights cases for surface and groundwater appropriations that are being adjudicated by Natural Resources. All single family domestic declarations of 1,000 gallons per day or less will be exempt from this notice.

3. To send Fish and Game and Environmental Conservation copies of water rights permits and certificates authorized by AS 46.15 when they are issued.

ENVIRONMENTAL CONSERVATION AGREES:

1. To send Natural Resources and Fish and Game copies of wastewater disposal permit applications and locational maps as required by AS 46.03.110(c) when received by Environmental Conservation.

2. To send Natural Resources and Fish and Game copies of public notices of applications and locational maps for State Water Quality Certifications of federally permitted activities received by Environmental Conservation under 18 AAC 15 and P.L. 95-217 except where notice is received from the federal permitting agency.

3. To send Natural Resources and Fish and Game copies of wastewater disposal permits authorized by AS 46.03.100 and P.L. 95-217 when they are issued.

4. To send Natural Resources and Fish and Game copies of State water quality certifications authorized by P.L. 95-217 when they are issued.

FISH AND GAME, NATURAL RESOURCES, AND ENVIRONMENTAL CONSERVATION MUTUALLY AGREE:

1. Each Department will make available to the public appropriate permit application forms from the other two Departments.

2. Each Department will directly contact applicants for permits and certifications of the other Departments, when requiring information additional to the permit or certification applications and maps provided by the issuing Department, and to send a copy of any such written correspondence to the issuing Department.

3. Each Department will reference all interagency correspondence and correspondence to applicants concerning water rights permits and certificates, anadromous fish permits, wastewater disposal permits, and state water quality certifications with the document number assigned by the issuing agency.

4. Each Department will provide comments to the issuing Department on all projects for which applications for water rights permits or certificates, anadromous fish permits, wastewater disposal permits or water quality certifications have been received.

5. Comments upon permit or certification applications will be provided to the issuing Department within the time period stated on the transmittal memo sent by the issuing Department.

6. Each Department may notify another Department in writing that the Department will have no comment regarding a class or type of permit or certification application judged to have minor adverse impacts.

7. To include in water rights permits and certificates, anadromous fish permits, wastewater disposal permits, and state water quality certifications a citation of appropriate statutory authority along with conditions provided by Fish and Game for fish and game resource and habitat protection, conditions provided by Natural Resources for water appropriation and distribution and conditions provided by Environmental Conservation for water quality protection when these conditions are based on the statutory authority of these Departments, and to consider the inclusion of other recommendations provided by these Departments when judged by the issuing Department to be in the best public interest.

8. Prior to issuance, each Department will notify the appropriate Department of recommendations that the issuing Department does not agree to include in a permit or certification.

9. Each Department will be responsible for enforcing permit and certification conditions established pursuant to the authorities of that Department.

10. Each Department's permits and certifications will state that issuance of the permit or certification does not relieve the applicant from the responsibility to obtain permits or authorizations that may be required by other Federal, State, or local agencies. This statement shall direct the applicant to contact Environmental Conservation's Permit Information and Referral Center for information on additional authorizations that may be required.

11. Amendments to this Agreement may be proposed by one Department and shall become effective upon approval by each Department.

12. This Agreement shall become effective 30 days after it has been signed by each Department and shall continue in force until terminated by one Department following one hundred-twenty (120) days notice in writing to the other Departments of that Department's intention to so terminate.

STATE OF ALASKA
DEPARTMENT OF FISH AND GAME

BY Ronald O. Skoog
Ronald O. Skoog
Commissioner

Date 25 June 79

STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES

BY Robert E. LeResche
Robert E. LeResche
Commissioner

Date 26 June 1979

STATE OF ALASKA
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

BY
Ernest W. Mueller
Commissioner

Date JUN 22 1979

Introduced: 2/2/79
Referred: Resources

IN THE HOUSE

BY THE RULES COMMITTEE BY REQUEST OF THE GOVERNOR

HOUSE BILL NO. 118

IN THE LEGISLATURE OF THE STATE OF ALASKA

ELEVENTH LEGISLATURE - FIRST SESSION

A BILL

For an Act entitled: "An Act relating to the maintenance of stream flows and levels of water."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

* Section 1. AS 46.15.030 is amended to read:

Sec. 46.15.030. WATERS RESERVED TO THE PEOPLE. Wherever occurring in a natural state, the waters are reserved to the people for common use and are subject to appropriation and beneficial use and to reservation of instream flows and levels of water, as provided in this chapter.

* Sec. 2. AS 46.15 is amended by adding a new section to read:

Sec. 46.15.145. RESERVATION OF WATER. (a) The state or any political subdivision or agency of the state may apply to the commissioner to reserve sufficient water to maintain a specified instream flow or level of water at a specified point on a stream or body of water, or in a specified stretch of stream, throughout the year or for specified times of the year, for protection of fish and wildlife habitat, migration, and propagation, for recreation and park purposes, for navigation and transportation purposes, and for sanitary and water quality purposes.

(b) Upon receiving an application, the commissioner shall proceed in accordance with sec. 70 of this chapter.

(c) The commissioner shall issue a certificate reserving the water requested if he finds that:

(1) the rights of prior appropriators will not be affected by the reservation;

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(2) a need exists for the reservation;

(3) there is unappropriated water in the source sufficient for the reservation; and

(4) the proposed reservation is in the public interest.

(d) After the issuance of a certificate of reservation, the specified water shall be withdrawn from appropriation and the commissioner shall reject an application for a permit to appropriate the reserved water.

(e) A reservation under this section does not affect any rights in existence when the certificate reserving water is issued.

* Sec. 3. AS 46.15.260(1) is amended to read:

(1) "appropriate" means to divert, impound, or withdraw a quantity of water from a source of water, or, in the case of a public agency, to reserve water in accordance with sec. 145 of this chapter, for a beneficial use;

* Sec. 4. AS 46.15.260(2) is amended to read:

(2) "appropriation" means the diversion, impounding or withdrawal of a quantity of water from a source of water, or, in the case of a public agency, the reservation of water in accordance with sec. 145 of this chapter, for a beneficial use;

* Sec. 5. AS 46.15.260(3) is amended to read:

(3) "beneficial use" means a use of water for the benefit of the appropriator, other persons or the public, that is reasonable and consistent with the public interest, including, but not limited to, domestic, agricultural, irrigation, industrial, manufacturing, fish and shellfish processing, navigation and transportation, mining, power, public, sanitary, fish and wildlife, [AND] recreational uses, and maintenance of water quality;

Appendix F

Introduced: 2/13/79
Referred: Resources and Judiciary

IN THE HOUSE

BY THE RULES COMMITTEE BY REQUEST OF THE GOVERNOR

HOUSE BILL NO. 186

IN THE LEGISLATURE OF THE STATE OF ALASKA

ELEVENTH LEGISLATURE - FIRST SESSION

A BILL

For an Act entitled: "An Act relating to the Water Use Act; and providing for an effective date."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

* Section 1. AS 46.15 is amended by adding new sections to read:

Sec. 46.15.069. DETERMINATION OF EXISTING RIGHTS. (a) A claimant of an existing right under AS 46.15.060 shall file a declaration of appropriation with the commissioner as set out in this section. The declaration shall be considered correct until a certificate of appropriation is issued or denied. Priority of the right dates from the day work was begun on the appropriation if due diligence was used in completing the work; otherwise, from the day water was applied to the beneficial use.

(b) The commissioner shall, as soon as practicable, determine the rights of persons owning existing appropriations. To accomplish this, the commissioner shall

(1) by order set a definite period for filing a declaration of appropriation within a specified area or from a specified source;

(2) publish notice of the order once a week for three weeks before the beginning of the period in a newspaper of general circulation in the affected area;

(3) give notice of the order by certified mail to any appropriator within the specified area or from the specified source who has requested mailed notice or of whom the commissioner can readily obtain knowledge, including each owner of a recorded mining claim.

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(c) The commissioner shall make investigations he considers necessary of rights asserted by declarations filed under this section and shall determine each existing appropriation and mail a summary of that determination to each person who has filed a declaration with respect to the specified area or source. Any person adversely affected by a determination may file with the commissioner a request for a hearing within 15 days after the date the notice is mailed. If a hearing is requested, the commissioner shall send a notice of the time and place of the hearing to each person who has filed a declaration.

(d) If a hearing is not requested with respect to a determination, or if, after the hearing, the commissioner finds the determination to have been correctly made, he shall immediately issue a certificate of appropriation. If the commissioner finds the determination to be incorrect, he shall correct it and either issue a certificate of appropriation or refuse the certificate according to his findings.

(e) A person aggrieved by the action of the commissioner may appeal to the superior court within 30 days after the date on which that action is final.

Sec. 46.15.115. TERMINATION OF PERMITS. (a) If the commissioner has reason to believe that a permit holder has wilfully violated any terms, conditions, restrictions, or limitations of the permit, he may require the holder to show cause why the permit should not be canceled. Notice must be provided to the holder by personal service or by certified mail. Upon giving notice, the commissioner may, and at the request of the applicant shall, hold a hearing. Whenever, after notice and hearing, if any, the commissioner finds that a wilful violation has occurred, he may cancel or suspend the permit or impose conditions on its future use to prevent further violations. Notice of the order or decision must be served personally or sent by certified

to the permit holder.

(b) If a permit holder fails to notify the commissioner, upon or before the expiration of his permit or any extension of it, that he has perfected his appropriation as provided in AS 46.15.120, the commissioner may require the holder to show cause why the permit should not be canceled. Notice must be provided to the holder by personal service or by certified mail. Upon giving notice, the commissioner may, and at the request of the applicant shall, hold a hearing. Notice of the order or decision must be served personally or sent by certified mail to the permit holder.

(c) Upon termination of a permit under this section, the appropriation reverts to the state and the water becomes unappropriated water.

* Sec. 2. AS 46.15.120 is amended to read:

Sec. 46.15.120. CERTIFICATES. Upon completion of construction of the works and commencement of use of water, the permit holder shall notify the commissioner that he has perfected his appropriation. If the commissioner determines that the appropriation has been perfected in substantial accordance with the permit, he shall issue the permit holder a certificate of appropriation. <u>The commissioner may issue the certificate subject to conditions he considers necessary to protect the water rights of other persons and the public interest.</u> [THE CERTIFICATE SHALL SET OUT SUCH INFORMATION AS THE COMMISSIONER MAY PRESCRIBE BY REGULATION.]

* Sec. 3. AS 46.15 is amended by adding a new section to read:

Sec. 46.15.134. NOTICES; OBJECTIONS. (a) Upon receiving an application, the commissioner shall prepare a notice containing the location and extent of the proposed appropriation, the name and address of the applicant, and other information he considers pertinent. The

(d) If no objection is filed, the commissioner may proceed to make his determination upon the application.

(e) A person aggrieved by the action of the commissioner may appeal to the superior court.

(f) The commissioner may, by regulation, designate types of appropriations which are exempt from this section and provide simplified procedures for ruling on the applications. (§ 1 ch 50 SLA 1966; am § 6 ch 104 SLA 1971; am § 52 ch 71 SLA 1972)

notice must state that within 15 days after publication or service of notice, persons may file with the director written objections, stating the name and address of the objector, and any facts tending to show that rights of the objector or the public interest would be adversely affected by the proposed appropriation.

(b) The commissioner shall have notice published at the applicant's expense in one issue of a newspaper of general circulation in the area of the state in which the water is to be appropriated. The commissioner shall also have notice served personally or by certified mail upon an appropriator of water or applicant for or holder of a permit who, according to the records of the Department of Natural Resources, might be affected by the proposed appropriation, and may serve notice upon any governmental agency, political subdivision or person; notice must also be served upon the Department of Fish and Game and the Department of Environmental Conservation.

(c) Within 15 days after publication or service of notice, an interested person may file an objection. The commissioner may hold hearings upon giving notice and shall grant, deny, or condition the application in whole or in part after receipt of the last objection or after conclusion of the hearing. Notice of the order or decision must be served personally or mailed to any person who has filed an objection.

* Sec. 4. AS 46.15.140 is amended to read:

Sec. 46.15.140. ABANDONMENT, FORFEITURE, AND REVERSION OF APPROPRIATIONS. (a) The commissioner may declare an appropriation to be wholly or partially abandoned and cancel the per it, certificate, or declaration [REVOKE THE CERTIFICATE] of appropriation if an appropriator with intention to abandon, does not make beneficial use of all or a part of his appropriated water. An appropriation so forfeited and abandoned reverts to the state and the water becomes unappropriated

existing law requires incorporation fee. Fee left out by oversight

water.

(b) The commissioner may declare an appropriation to be wholly or partially forfeited and shall cancel the permit, certificate, or declaration [REVOKE THE CERTIFICATE] of appropriation if an appropriator voluntarily fails or neglects, without sufficient cause, to make use of all or a part of his appropriated water for a period of five successive years.

* Sec. 5. AS 46.15.150(b) is amended to read:

(b) To be entitled to a preference, an applicant must show that his use will be prevented or substantially interfered with by a prior appropriation, [;] the use is a preferred use, [;] the applicant agrees to compensate a permit or certificate holder of [FOR] the prior appropriation for any damages occasioned or caused by the preferred use [SUSTAINED BY THE PREFERRED USE], and other information which the commissioner requires by regulation.

* Sec. 6. AS 46.15.160(a) is amended to read:

(a) The right to use water under an appropriation is [OR PERMIT SHALL BE] appurtenant to the land or place where it has been or is to be beneficially used; however, [PROVIDED, THAT] water supplied by one person to another person's property is [SHALL] not [BE] appurtenant to the property unless the parties so intend. An appurtenant water right passes [SHALL PASS] with a conveyance of the land, or transfer, or by operation of law unless specifically exempted from the conveyance.

* Sec. 7. AS 46.15.180 is amended to read:

Sec. 46.15.180. CRIMES. A person who constructs works for an appropriation, or diverts, impounds, withdraws, or uses a significant amount of water from any source without a permit or certificate of appropriation; or a person who violates an order of the commissioner to cease and desist from preventing any water from moving to a person

having a prior right to use the same; or who violates an order of the commissioner requiring him to modify a water body alteration that is preventing water from moving to a person having a right to use the water; or who disobeys an order of the commissioner requiring him to take steps to cause the water to so move; or who fails or refuses to install meters, gauges or other measuring devices or control works; or who violates an order establishing corrective control works; or who violates an order establishing corrective controls for an area or for a source of water, or who knowingly makes a false or misleading statement in a declaration of existing rights, is guilty of a misdemeanor. Crimes under this section are in addition to any other crimes provided by law.

* Sec. 8. AS 46.15.070 and 46.15.135 are repealed.

* Sec. 9. This Act takes effect immediately in accordance with AS 01.-10.070(c).

Ken Wonstolen

GEOTHERMAL POLICY REPORT FOR ALASKA:

Preliminary Options and Recommendations

Energy Program -- Geothermal Project
National Conference of State Legislatures
1405 Curtis Street, Suite 2300
Denver, Colorado 80202
303/623-6600

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INTRODUCTION

The NCSL Geothermal Project is assisting the Alaska Legislature in a review of geothermal policies. To date project staff have conducted field research on two occasions, as well as participating in a public workshop (9/13/79) co-sponsored by the Joint Special Committee on Renewable Energy Policy. As a result of these activities NCSL proposed a State Technical Assistance Program (see Appendix A) which was ratified by the committee leadership (9/14/79).

This document has been prepared pursuant to the state workplan as background material for a committee meeting (11/8/79) intended to consider the policy recommendations herein. The study areas identified in the state workplan are treated as follows:

I. Proposed Comprehensive Geothermal Resources Act

- includes resource characterization (definition), resource access (leasing), water law, permitting and well regulation, and resource allocation.

II. Financial Package

- includes a review of various tax and other incentives for geothermal producers and users, as well as suggestions regarding a state geothermal fund (this section should be considered in conjunction with the NCSL Small-Scale Hydro Policy Report which contains additional material regarding state financing of energy development).

III. District Heating

- includes a proposal to authorize publicly-owned heating districts, as well as a review of utility regulatory issues.

IV. Miscellaneous

- includes funding for administrative agencies, life-cycle costing, building codes and zoning, amendments to the Water Use Act and environmental procedures.

I. PROPOSED GEOTHERMAL RESOURCES ACT

Synopsis

It is recommended that the existing geothermal statute (38.05.181) be repealed and re-enacted in a simplified form. The NCSL draft geothermal statute is proposed for discussion purposes.

The proposed act would:

(1) redefine geothermal resources via a temperature threshold (120°C/248°F)
(2) provide for mineral leasing of geothermal resources on state lands
(3) establish statewide regulatory authority in the Division of Minerals and Energy Management over geothermal drilling activity
(4) indicate the applicability of the Water Use Act (46.15) to geothermal development
(5) provide for simplified access to state lands for low-temperature development
(6) establish regulatory authority over low-temperature development in the Division of Forest, Land and Water Management

The overall design of the proposed act is to distinguish between the development of high-grade thermal resources by major projects (e.g., electrical generation, industrial process heat) and the development of "hot groundwater" for small-scale direct uses (e.g., space heating, greenhouses, aquaculture). The proposed act would also establish the relationship of geothermal development to existing water uses. Certainty, simplification of procedures and stimulation of development are the objectives.

DISCUSSION DRAFT

TITLE 38. PUBLIC LANDS

Chapter ____. Geothermal Resources Act

Article
1. Declaration of Policy and Definitions
2. Geothermal Leasing and Regulation
3. Low-Temperature Development

ARTICLE 1. DECLARATION OF POLICY AND DEFINITIONS

Sec. 1

A. It is declared to be in the public interest to foster and promote the discovery, development, production, utilization and disposal of geothermal resources in the state of Alaska in such a manner as will prevent waste, provide for maximum economic recovery, protect correlative rights, and safeguard the natural environment and the public welfare.

B. It is declared to be in the public interest to foster and promote, under existing law, the utilization of the thermal energy contained in the groundwaters of the state of Alaska in an efficient and environmentally sound fashion.

Sec. 2

This act shall apply to all lands in the state of Alaska, including federal and Alaskan Native lands to the extent allowed by law. When any of these lands are committed to a unit agreement involving lands subject to federal jurisdiction, the operation of this act or any part of this act may be suspended, provided that the unit operations are regulated by the United States and that the conservation of geothermal resources is accomplished under such unit agreement.

Sec. 3

Administration of this chapter shall be under the principle of multiple use of public lands and, insofar as feasible, shall allow for the coexistence of other permits or leases of the same lands for other purposes. Leases or permits issued for lands withdrawn or acquired in aid of the functions of the Department of Natural Resources shall carry such conditions as will conform the lease operations to the purposes of such lands.

Sec. 4

A survey of the state's geothermal resources shall be performed by the state geologist and included in the complete geological survey of the state authorized by AS 41.07.020. A statement of the progress of the geothermal resources survey shall be contained in the annual report required by that section. A geothermal resources file shall be maintained and made available to the public in the offices of the State Geological and Geophysical Survey (and/or the State Division of Energy and Power Development).

Sec. 5

As used in this act, unless the context requires otherwise:

A. "byproduct" means dissolved or entrained minerals and gases (exclusive of hydrocarbon substances and helium) associated with geothermal resources,and demineralized water;

B. "correlative rights" means the right of each geothermal owner in a geothermal system to produce without waste his just and equitable share of the geothermal resources in the geothermal system;

C. "division" means the Division of Minerals and Energy Management in Article 2 of this chapter and means the Division of Forest, Land and Water Management in Article 3 of this chapter;

D. "geothermal area" means the general land area which is underlain or reasonably appears to be underlain by geothermal resources;

E. "geothermal fluid" means brines, water and steam naturally present in a geothermal system;

F. "geothermal resources" means (1) the natural heat of the earth at temperatures greater than 120 degrees Celsius; (2) the energy in whatever form, present in, resulting from, created by or which may be extracted from that natural heat, including pressure; (3) the material medium containing the energy; and (4) all dissolved or entrained minerals and gases which may be obtained from the material medium, but excluding hydrocarbon substances and helium;

G. "geothermal system" means any strata, pool, reservoir or other geologic formation containing geothermal resources;

H. "material medium" means geothermal fluids or water and other substances artificially introduced into a geothermal system to serve as a heat transfer medium;

I. "operator" means any person drilling, maintaining, operating, producing or in control of any well;

J. "owner" means any person who has the right to drill into, produce and make use of geothermal resources;

K. "person" means any individual, business entity, political subdivision or body politic of this or any other state;

L. "waste" means any inefficient, excessive or improper production, use or dissipation of geothermal resources, including, but not limited to:

(1) drilling, transporting or storage methods that cause or tend to cause unnecessary surface loss of geothermal resources;

(2) locating, spacing, drilling, equipping, operating, producing or venting of any well in such a manner that results or tends to result in reducing the ultimate economic recovery of geothermal resources.

M. "well" means any well drilled, converted or reactivated for the discovery, testing, production or subsurface injection of geothermal resources, or of groundwater valuable for its thermal energy.

ARTICLE 2. GEOTHERMAL LEASING AND REGULATION

Sec. 1

A. The Division of Minerals and Energy Management shall have and is hereby given jurisdiction over all persons and property, public and private, necessary to enforce the provisions of this article, and shall have the power and authority to make and enforce rules, regulations and orders reasonably necessary to carry out the purposes of the act.

B. Any affected person may apply for a hearing before the division, or the division may initiate proceedings upon any questions relating to the administration of this article, and jurisdiction is hereby conferred upon the division to hear and determine the same and enter its rule, regulation or order with respect thereto.

Sec. 2

The state of Alaska shall own all geothermal resources where it has title to the minerals or subsurface estate. Rights to explore for, develop and utilize geothermal resources owned by the state of Alaska may be obtained solely in accordance with the provisions of this article.

Sec. 3

The division may designate geothermal resource areas and declare certain of these, or portions thereof, as a "competitive geothermal resource area," each of which shall contain at least one well capable of producing geothermal resources in commercial quantities.

Sec. 4

A. The division may, under rules and procedures it shall adopt, grant prospecting permits and leases to any qualified person in order to explore for, develop or utilize state-owned geothermal resources.

B. Where title to the surface is held by a person other than the state, such person shall have a preferential right to a prospecting permit or lease for such parcel.

Sec. 5

A. On lands which have not been designated as a geothermal resource area, the division shall issue a prospecting permit to the first qualified applicant.

Such permit shall convey an exclusive right, for a period of two years, to prospect for geothermal resources on lands included within the permit. The division may, at its discretion, renew the permit for an additional one year. The division may revoke a permit should it find that the permittee has failed to dilligently prosecute efforts to discover geothermal resources.

B. A holder of an exclusive prospecting permit shall have the right, within the permit term or thirty days thereafter, to convert such permit to a lease. Should the lands included within the permit be declared a "competitive geothermal resource area" during the permit term, the permittee must make application for a lease within thirty days or forfeit his conversion privileges and his exclusive right to prospect.

C. On lands which have been designated a geothermal resource area, prospecting permits may be granted on a non-exclusive basis for a one-year term. Such permits may, at the discretion of the division, be renewed annually. Holders of non-exclusive prospecting permits shall have no right to convert such permits to a lease; however, the division may allow expenditures made under such permits to be credited against lease payments for any lease covering the same lands, which is subsequently issued to the permittee.

Sec. 6

A. On lands which have not been declared a "competitive geothermal resource area," and which are not included under an exclusive prospecting permit, the division may issue a geothermal lease to the first qualified applicant.

B. On lands declared to be within a "competitive geothermal resource area," and which are not included under an exclusive prospecting permit, the division may issue geothermal leases by public auction to the highest qualified bidder. At the discretion of the division, competitive lease sales may be by oral or sealed bid, on the basis of a cash bonus, profit share or other single factor.

Sec. 7

A. The division shall, on all permits and leases, attach such conditions as it shall deem necessary to provide for multiple use of state lands, protect the rights of other persons holding an interest in the same lands, prevent waste and safeguard the natural environment and the public welfare.

B. The division shall require a geothermal permittee or lessee to compensate the owners of prior interests in the same lands for damage to those interests, or to post a sufficient bond pending judicial determination of the matter.

Sec. 8

A. Prospecting permits and leases granted under this article shall normally be issued on parcels at least 40 acres in size, but in no case more than 2560 acres in size.

B. No person shall own, or hold an interest in, geothermal leases covering more than 51,200 acres; except that leases in commercial production, individually or in concert, shall not be counted against this acreage limitation.

C. All prospecting permits and leases shall be subject to an annual rental, payable in advance, of at least one-dollar per acre.

Sec. 9

A. Geothermal leases shall be issued for a primary term of ten years and shall be renewed for an additional term of five years if the lessee is actively engaged in drilling operations. Geothermal leases shall be valid for the duration of commercial production, up to a term of 40 years.

B. The division may renegotiate the provisions of a geothermal lease, including rentals and royalties, beginning 15 years after the initiation of commercial production and at 10 year intervals thereafter.

Sec. 10

A. The division shall charge a royalty of at least 10% but not more than 15% on the gross revenues derived from the production, sale or utilization of geothermal resources under a state lease. It shall also charge a royalty of at least 2% but not more than 10% on the net proceeds derived from the production, sale or utilization of byproducts under such lease. In no case shall the combined royalties on a lease be less than two-dollars per acre.

B. The division may, at its discretion and in the public interest, reduce, suspend or waive the royalties otherwise due under a state lease. In such cases, the lessee shall pay a minimum annual rental of three-dollars per acre.

Sec. 11

A. The division shall promulgate a development program on each discernible geothermal system, including well-spacing and pooling orders, limits on production and reinjection requirements, in order to prevent waste, promote maximum economic recovery and protect correlative rights.

B. Lessees on a geothermal system, or part thereof, may enter into a unit agreement for cooperative development, with the approval of the division. The division may suspend or modify its development program in accord with such unit agreement.

C. Should the owners of two-thirds of the leasehold interests in a geothermal system ratify a unit agreement approved by the division, the division may enforce the agreement as to lessees not a party to the agreement by allocating production under the principle of correlative rights and by apportioning costs and revenues.

D. Lease operations under a well-spacing and pooling order or an approved unit agreement shall be deemed to be in compliance with individual lease requirements.

Sec. 12

A. The division shall promulgate regulations covering the siting, spacing, drilling, casing, cementing, testing, logging, operating, producing and abandonment of geothermal wells so as to prevent:

(1) geothermal resources, water or other fluids, and gases from escaping into strata other than that in which they are found (unless in accordance with an approved reinjection program);

(2) pollution of surface and ground water;

(3) premature cooling of any geothermal system by water encroachment or otherwise;

(4) blowouts, cavings and seepage; and

(5) unreasonable disturbance or injury to neighboring properties, prior water rights, human life, health and the natural environment.

B. The division shall cause the operator of any geothermal well or wells to file adequate individual or blanket surety bonds to ensure compliance with its regulations.

C. The division shall have the right to enter upon any property, public or private, to inspect a geothermal operation for compliance with its regulations.

D. Geothermal wells regulated by the division shall be exempt from Oil and Gas Commission jurisdiction under AS 31.05.030(g).

Sec. 13

A. Operators shall, prior to drilling a geothermal well, file a notice of intent with the Chief Officer of the Water Management Section of the Department of Natural Resources. Such notice shall contain sufficient information to enable the Chief Officer to determine whether the operation of such well will interfere with and impair an existing water right.

B. Operators shall not commence the drilling of a geothermal well without the approval of the Chief Officer, who shall grant such consent upon finding that:

(1) the proposed geothermal well operation will not significantly interfere with or substantially impair an existing water right; or

(2) the geothermal owner has acquired through purchase or condemnation adequate water rights to offset the potential interference or impairment; or

(3) the geothermal owner has obtained and dedicated an equivalent amount of replacement water of comparable quality to the affected party or parties.

The Chief Officer shall retain his jurisdiction, including the authority to suspend well operation, in the event of unforeseen interference which occurs subsequent to his approval.

C. The withdrawal of geothermal fluid from a geothermal well and its sale or utilization for primary energy production shall not otherwise be subject to the Water Use Act (AS 46.15). The secondary use of spent geothermal fluids or of demineralized water obtained as a byproduct shall be subject to the provisions of the Water Use Act. However, the geothermal owner shall have a preferential right to appropriate such geothermal fluids or demineralized water, in order to make beneficial use thereof.

ARTICLE 3. LOW-TEMPERATURE DEVELOPMENT

Sec. 1

A. The Division of Forest, Land and Water Management shall have and is hereby given jurisdiction over all persons and property, public and private, necessary to enforce the provisions of this article, and shall have the power and authority to make and enforce rules, regulations and orders reasonably necessary to carry out the purposes of the act.

B. Any affected person may apply for a hearing before the division, or the division may initiate proceedings upon any questions relating to the administration of this article, and jurisdiction is hereby conferred upon the division to hear and determine the same and enter its rule, regulation or order with respect thereto.

Sec. 2

A. It is hereby declared that the beneficial use of groundwater includes the extraction for sale or use of thermal energy contained therein for domestic, commercial, industrial, agricultural, aquacultural or other purposes approved by the division.

B. Priority of appropriation includes the right to preserve thermal aspects of groundwater use from subsequent impairment.

C. The utilization of groundwater for thermal purposes shall be governed by the provisions of the Alaska Water Use Act (AS 46.15) and regulations promulgated thereunder.

Sec. 3

A. The division shall have the authority to issue a special land use lease to any qualified person who applies to use the surface of a state land parcel to construct a facility utilizing groundwater for thermal purposes, or utilizing spent geothermal fluids in a secondary application.

B. Prior to the issuance of such lease, the division shall determine that there is available unappropriated groundwater or spent geothermal fluids sufficient to achieve the purposes of the lease. In the case of groundwater, the appropriation shall be made in the name of the state of Alaska and dedicated to the benefit of the leasehold. Upon termination of the lease, the water right shall revert to the state, unless the division grants an extension of the water right for good cause and in the public interest.

Sec. 4

A. The division shall exercise discretion with regard to the term, renewal and acreage (not to exceed 160 acres in size) of any special land use lease issued under this article. Such conditions shall correspond to the intended use to be made of the state parcel. The division shall attach such other conditions to the lease as to protect the public interest and conform the lease operation to other established uses of such lands.

B. Lease payments to the state of Alaska shall be on the basis of an annual rental, payable in advance, or on the basis of a profit share, such payments to be negotiated between the lease applicant and the division. In no case shall such lease payments total less than three-dollars per acre.

Sec. 5

A. The division shall promulgate such regulations as are necessary to control the drilling of any groundwater wells for thermal purposes so as to prevent:

(1) groundwater from escaping into strata other than that in which they are found (unless in accordance with an approved reinjection program);
(2) pollution of surface and ground water;
(3) impairment of prior water rights by premature cooling, or reduction in quality or quantity; and
(4) unreasonable disturbance or injury to neighboring properties, human life, health and the natural environment.

B. The division shall have the authority to require any operator of a groundwater well for thermal purposes to file a notice of intent and receive the approval of the division prior to commencing actual drilling. The division may require the maintenance of such records and well logs as it may require and may enter upon any property, public or private, to inspect the operations for compliance with its regulations.

C. If the division finds that an encounter of oil, gas or other hazardous substance is likely to result from well drilling, the provisions of AS 31.05.030(g) shall apply.

ADDENDUM TO THE GEOTHERMAL RESOURCES ACT

Art. 1 § 1 B: (deletion)

It is declared to be in the public interest to foster and promote (under existing law) the utilization of the thermal energy . . . .

Art. 1 § 5: additional definition (E): reletter subsequent definitions

"geothermal effluent" means the material medium subsequent to electrical production or other primary energy extraction process;

Art. 1 § 5 F: (deletion)

. . . (3) the material medium (containing the energy); and . . . .

Art. 1 § 4 B: additional material

. . . preference right to a prospecting permit or lease for such parcel. Such right must be exercised at the time of the first application for a permit or lease on such lands, or it shall be forfeited.

Art. 1 § 5 A: additional material

. . . designated as a geothermal resource area or withdrawn from entry, the division shall issue . . . .

Art. 1 § 7: additional material (B); reletter existing B as C

B. Lease conditions shall include diligence requirements regarding drilling and lease development. Failure to comply with such conditions shall be grounds for termination of the lease, unless they be waived or suspended by the division for good cause shown and in the public interest.

Art. 2 § 10 B: addition and (deletion)

B. The division may, for good cause shown (at its discretion) and in the public interest, reduce, suspend or waive the minimum rentals and royalties otherwise due under a state lease. (In such cases, the lessee shall pay a minimum annual rental of three-dollars per acre.)

Art. 2 § 11 A: addition and (deletion)

. . . promulgate a development program on each producing (discernible) geothermal system . . . .

Art. 2 § 11 D: addition and (deletion)

D. Lease operations under an approved development program (a well-spacing and pooling order or an approved) or unit agreement shall be deemed . . . .

Art. 2 § 13 B: addition

. . . in the event of unforeseen interference to prior rights which occurs subsequent to his approval.

Art. 2 § 13 C: addition and (deletion)

. . . The secondary use of geothermal effluent (spent geothermal fluids) or of demineralized water . . . . preferential right to appropriate such geothermal effluent (geothermal fluids) or demineralized water . . . .

Art. 3 § 2 B: delete entire section; reletter C to B

Some degradation of thermal aspects should be allowed, by analogy to allowable changes in the "condition of water occurrence" (AS 46.15.050). Excessive or unreasonable thermal degradation can be prevented via the regulatory authority regarding the prevention of "premature cooling" (Art. 3, § 5 of the proposed act).

Art. 3 § 3 A: addition and (deletion)

. . . or utilizing geothermal effluent (spent geothermal fluids) in a secondary application.

Art. 3 § 3 B: addition and (deletion)

. . . available unappropriated groundwater or geothermal effluent (spent geothermal fluids) sufficient to achieve . . . . Upon termination of the lease, (the) such groundwater right shall revert to the state, unless the division grants an extension (of the water right) for good cause shown and in the public interest. Water rights to geothermal effluent shall also be relinquished upon the termination of such lease and shall be available for subsequent appropriation, subject to the preference right of the original geothermal owner.

Art. 3 § 5 B: addition and (deletion)

. . . the maintenance of such records and well logs as it deems necessary (may require) and may enter . . . .

II. FINANCIAL PACKAGE

A. Tax Incentives

(1) Relevant tax incentives for geothermal producers relate to the income tax and the property tax. With regard to the income tax, Alaska follows the Internal Revenue Code. Thus, the geothermal tax incentives enacted in the National Energy Act of 1978 will be available to geothermal producers in the state. These include: deductions for intangible drilling costs for development purposes; a declining depletion allowance; and, an additional investment tax credit (not necessarily applicable to state income taxes). The legislature may wish to consider allowing intangible costs for exploration purposes to be deducted and insuring that a state investment tax credit is allowed.

The ad valorem property tax looms as the major disincentive to geothermal development. Front-end capital costs to develop a geothermal lease are quite high -- a single well may cost from half to more than a million dollars. Assessing an ad valorem tax on the value of the resource in place during these early years and before commercial return, may constitute an unbearable financial burden. Alternative approaches include: exemption from property taxation until commercial production begins; deferral of property tax payments until commercial production begins; and, substitution of a well-head yield tax for ad valorem assessment.

(2) Relevant tax incentives for geothermal users also relate to the income and property taxes. Income tax credits for expenditures for equipment to use geothermal resources (or alternate energy sources) can significantly reduce front-end capital costs and reduce payback periods. A federal alternate energy income tax credit is available, but many states have enacted supplemental legislation. Another option is to exempt the added value of a home or business due to installation of geothermal (or alternate energy sources) equipment from property taxation. A bill draft along these lines developed by the Alaska Division of Power and Energy Development, as well as an NCSL bill draft on the subject, is attached (see Appendix B).

B. Funding of Energy Development (see Small-Scale Hydro report)

Many funding avenues are available for consideration by the legislatures; a memorandum from the Legislative Finance Division listing these possibilities is attached (see Appendix C). With regard to geothermal development, three options are particularly attractive:

(1) direct funding (via grants or low-interest loans) for exploration and drilling costs incurred by municipalities. Revenue bonding is inapplicable to discovery and drilling costs due to the inherent risk. Use of general obligation bonds for such purposes is subject to debt limits and political constraints. Direct state funding would constitute an important alternative (see HB 309, Appendix C).

(2) "double barrel" bonding is the pledge of both project revenues and general revenues (full faith and credit) to secure bond issues. Given the risky nature of reliance on "new" energy sources such as geothermal, such authority may enhance the marketability of municipal geothermal bond issues (see HB 241, Appendix C).

(3) state bond guarantees would be another option to enhance the marketability of geothermal bond issues. Using state funds to guarantee bonds rather than to directly fund project construction should allow the available dollars to go farther. In addition, private capital markets would be the primary source of equity, rather than state revenues. Such involvement of the private sector should be encouraged; direct state funding would reduce such participation.

III. DISTRICT HEATING

A. District heating is an attractive and potentially near term application of geothermal resources and hot groundwater. Indeed, even normal gradient groundwater may be effeciently utilized via a water-to-air (groundwater referenced) heat pump. Given the lack of a power transmission grid in Alaska, direct geothermal uses such as district heating may turn out to be the most widespread type of development.

Alaska has expressed a strong constitutional (Art. X, Sec. 5) and statutory (29.63.090(d)) preference against the creation of new political entities to provide services which might be provided by existing ones. Municipalities (boroughs/cities) are already authorized to provide "heat, light, power (and) water" services (29.48.030). This seems adequate to cover district heating services. Borough service areas (29.63.090), public corporations or other municipal instrumentalities (29.59.010) are possible district heating vehicles. Municipal bonding, taxing, property, franchise, regulatory and other powers also are adequate for implementing district heating (see Appendix D).

While the existing authority seems adequate, it may enhance the marketability of municipal bonds to enact a statute declaring that municipal bonds may be issued to finance heating districts using geothermal, waste heat and alternate energy services. Also, such bonds might be accredited as legal investments for banks, trust funds and other institutional investors.

Alaska has a statute regarding Area Redevelopment (41.30) which is administered by the Board of the State Development Corporation. The statute authorizes cooperation with political subdivisions and industry to promote business expansion in redevelopment areas, including loans to aid financing. It is suggested that the legislature direct the Board to consider the organization of heating districts for industrial/commercial parks utilizing geothermal resources in its administration of the redevelopment program.

B. Public Utility Commission policies relating to the certification of new utilities (i.e., heating districts), service rates and reliability of service may have a significant impact on the development of district heating. NCSL will be conducting additional field research on these issues during its November visit to Alaska and may make recommendations on these matters at a later date.

IV. MISCELLANEOUS

A. Agency Funding

Agencies designated to administer the proposed Geothermal Resources Act will require adequate staff and funding levels to implement its provisions. These agencies and their responsibilities under the act include:

(1) State Geological and Geophysical Survey - conduct a statewide assessment of geothermal resources and maintain files available to the public.

   i. the Division of Energy and Power Development might also be directed to maintain public geothermal files under the proposed statute.

(2) Division of Energy and Minerals Management - designate geothermal resource areas, issue prospecting permits and leases, conduct lease sales, manage geothermal system development, regulate geothermal wells, promulgate rules and procedures and inspect geothermal operations.

(3) Division of Forest, Land and Water Management - investigate the impact of geothermal operations on existing water rights, issue leases, grant hot groundwater rights, regulate groundwater wells, promulgate rules and procedures, and inspect thermal groundwater operations.

The legislature may, if the act is adopted, memoralize these agencies with regard to submission of an annual operating budget request sufficient to fund the above activities. Such funding might be derived from general revenues, by earmarking geothermal and special land use lease payments, or a combination thereof.

Boroughs and cities will also be impacted by geothermal development. Such impact may include preparing geothermal zoning elements, revising land use plans, issuing various local permits and providing increased local services. Earmarking of geothermal lease revenues for such purposes is a possible funding option in this regard. A bill has been proposed in the California legislature directing the conveyance of federal geothermal lease payments to impacted counties. The administration is recommending an alternative bill. Copies of these proposals are attached (Appendix E).

B. Life-Cycle Costing

Life-cycle costing is a vital concept for the development of alternate and renewable energy sources. Construction of facilities to generate power from and installation or retrofitting of equipment to use such sources entails large front-end costs. The economic advantage of alternate energy sources vis-a-vis conventional fuels emerges only when costs are compared over the total useful life of a facility or building. That is, alternate energy development is capital intensive with relatively fixed, low fuel costs. Conventional fuel development is often less capital intensive -- due to established infrastructure -- but fuel costs are high and subject to escalation.

Thus, life-cycle costing should be incorporated into economic analyses of state-financed loans or grants for energy development (see the Small-Scale Hydro report on this subject).

Also, construction, expansion or revamping of public buildings should include life-cycle costing of various energy systems. An NCSL bill draft on this subject is attached (see Appendix F).

C. Building Codes and Zoning

Local building codes and zoning ordinances can constitute a severe impediment to the utilization of alternate energy systems. On the other hand, innovative ordinances such as the San Diego County solar hot water requirement and the Portland insulation program can serve as a stimulus to the commercialization of alternate energy. NCSL is building capacity regarding these initiatives and may be able to offer assistance to legislative policy reviews. One option would be the adoption of a Joint Resolution expressing the sense of the legislature with regard to removing local ordinance impediments.

D. Water Use Act

The Office of Water Management is in the process of promulgating regulations (11 AAC 93) to implement the Water Use Act (46.15 AS). Clarification of the ability to condition certificates of appropriation has been identified as a desirable remedial amendment (see the discussion of HB 186 in the Small-Scale Hydro report). With regard to geothermal and hot groundwater three initiatives are worth of examination:

(1) explicitly authorize the protection of thermal aspects of a water right via priority of appropriation;

(2) explicitly authorize the Office to appropriate thermal groundwaters in the name of Alaska on state lands and dedicate those water rights to special land use lessees;

(3) declare geothermal fluids (over 120°C) to be exempt from appropriation and the Water Use Act.

E. Environmental Procedures

Alaska's Environmental Procedures Coordination Act (EPCA) has not been thoroughly implemented (see the Small-Scale Hydro report for further analysis). With regard to geothermal development, the legislature may wish to direct that all the relevant permits be included within the EPCA process. In addition, it might be appropriate to develop a true master permit application for hot groundwater development, whereby only a single form would need to be completed. This is suggested as a method of simplifying the permit process for small-scale developers.

APPENDICES

A. Alaska Technical Assistance Program/Geothermal

B. Tax Credit Proposals

C. Alaska Funding Options

D. District Heating Article

E. California Proposals on Earmarking Geothermal Lease Revenues

F. Life-Cycle Costing Bill

APPENDIX A

Alaska Technical Assistance Program/Geothermal

NATIONAL CONFERENCE OF STATE LEGISLATURES

ENERGY PROGRAM -- GEOTHERMAL PROJECT
PROPOSED TECHNICAL ASSISTANCE PROGRAM FOR ALASKA

Study Areas

A. Resource Characterization

B. Resource Access

C. Resource Allocation

D. Permitting

E. Finance

F. District Heating

G. Public Utility Commission

Staff Responsibilities

NCSL Energy staff, in conjunction with legislative staff, will identify issues, conduct research, analyze policy concerns, investigate administrative responses and prepare legislative proposals, as needed.

Task	Staff	Status
Project Introduction	NCSL	completed
Issue Identification	Joint	completed
Research & Analysis	NCSL	in progress
Supplemental Field Research	Joint	in progress
Project Milestones		
- Policy Profile	NCSL	completed
- Options & Recommendations	NCSL	11/1/79
- Discussion Bill Drafts	Optional	12/79
- Draft Legislation	Optional	1/80
Review of Proposed Legislation		

APPENDIX B

Tax Credit Proposals

ALTERNATIVE ENERGY DEVICE TAX CREDIT

1979

GENERAL SESSION

Discussion Draft

_____B. No._____ By_____

AN ACT RELATING TO ALTERNATIVE ENERGY DEVELOPMENT: DEFINING ALTERNATIVE ENERGY DEVICES; PROVIDING AN INCOME TAX CREDIT FOR SUCH DEVICES; ALLOWING A CARRY OVER TO SUCCEEDING TAXABLE YEARS; PROVIDING FOR AMORTIZATION OF ALTERNATIVE ENERGY DEVICES IN COMMERCIAL USE; DESIGNATING THE STATE TAX COMMISSION TO ADMINISTER THIS ACT AND ESTABLISH STANDARDS IN CONJUNCTION WITH THE UTAH DIVISION OF WATER RIGHTS AND THE UTAH ENERGY OFFICE.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF UTAH:

SECTION I. Definition of Terms

As used in this act:

(a) "Alternative energy device" means (1) any system, mechanism or series of mechanisms which uses solar radiation, wind or geothermal resource for space heating, water heating or cooling, or for generation of mechanical or electrical energy for use but not for resale, (2) a system that employs a fluid-to-air heat pump operating on groundwater reservoir or a fluid reservoir heated by solar radiation or geothermal resource, and (3) equipment necessary to utilize and connect to a private or municipal system for purposes of heating and cooling that employs an alternative energy device or heat from an industrial or utility cogeneration system.

(b) "Cogeneration system" means a system which produces electrical energy and steam or forms of useful energy (such as heat) which are used for industrial, commercial, heating or cooling purposes.

(c) "Installation costs" means the costs, as determined according to standards established in the administration of this act, for acquisition, installation, construction, reconstruction or remodeling properly attributable to the use of an alternative energy device.

SECTION II. Residential Tax Credit

(1) Any resident individual taxpayer who completes installation of an alternative energy device for use in such taxpayer's principal dwelling prior to June 30, 1985, or who acquires title to a dwelling prior to June 30, 1985,

It is the policy of the State of Alaska to reduce the State's dependency on fossil fuels for internal use. It is the policy of the State to utilize these resources to garner income to the State for needed improvements and services.

FOR AN ACT ENTITLED "ALTERNATE ENERGY TAX CREDIT AND POLICY".

I. Be it enacted by the State of Alaska that a State Corporate or Income tax credit of 75% of the cost of installing an Alternate Energy System in a home or business be granted to the installers.

   A. Alternate Energy System is defined as systems that have the means of energy production utilizing energy sources other than fossil or nuclear fuels.

   B. This would include but not be limited to: Solar, Wind, Biomass, Low head hydroelectric and geothermal energy systems.

   If credit exceeds tax liability for year of installation, it can be carried forward to future years until tax credit is used entirely. This Act will remain in effect until 1991.

II. The State of Alaska authorizes local taxing authorities to exempt property with alternate energy systems from increased assessment due to the system. Exemption extends until the last day of December 1999. This applies to new construction and retrofits.

III. Energy conservation techniques and passive solar design qualify for the tax credit under the following criteria:

   A. New construction can qualify if it saves more than 10% of the yearly fossil fuel or electrical resistivety consumption of the latest ASHRAE or State of Alaska lighting and thermal standard facility whichever is most energy efficient.

   B. Retrofit homes or business can qualify for the exemption based on a 10% savings of energy consumption for the previous year resulting from passive design or energy conservation measures.

   C. After the last day of December 1982, retrofit homes will qualify only on the portion of passive solar design or energy conservation measures that reduces fossil fuel or electrical resistivety consumption 10% above the latest ASHRAE or State lighting and thermal standards whichever is the most demanding.

   D. Maximum tax credit allowed is $10,000 combined Federal and State allowances. Federal credits must be taken first before state tax credits will be allowed.

IV. All new multiunit housing facilities must have individual metering for heating and lighting controls to qualify for this tax credit.

which dwelling is to be used as a taxpayer's principal dwelling and is supplied energy from an alternative energy device for which the credit allowed by this section has never been claimed, shall be entitled to claim a tax credit in an amount equal to thirty-five percent (35%) of the installation costs of such system or three thousand dollars ($3,000), whichever is less, against the income tax liability imposed against the taxpayer pursuant to Title 59 Chapters 14 and 14A of the Utah Code Annotated, 1953. Such tax credit shall be deducted from the taxpayer's income tax liability for the taxable year in which the alternative energy device was completed or acquired and placed in service by the taxpayer.

(2) If the amount of such tax credit exceeds the taxpayer's income tax liability for such taxable year, the amount thereof which exceeds such tax liability may be carried over for deduction from the taxpayer's income tax liability in the next succeeding taxable year or years until the total amount of the tax credit has been deducted from tax liability.

(3) The provisions of this section shall be retroactive to the 1979 taxable year.

SECTION III. Commercial Tax Credit

Any taxpayer who completes installation of an alternative energy device upon real property located within this state prior to June 30, 1985, which real property is either used in a trade or business or held for the production of income, or any taxpayer who acquires title to real property located within this state prior to June 30, 1985, which real property is used in a trade or business or held for the production of income and is equipped with an alternative energy device for which the credit allowed by this section has never been claimed, shall be entitled to claim an income tax credit in an amount equal to thirty-five percent (35%) of the installation costs of such system or six thousand dollars ($6,000) or an amount equal to the taxpayer's income tax liability in the taxable year for which the credit is claimed, whichever is less, against the tax liability imposed against such taxpayer pursuant to Title 59 Chapters 14 and 14A of the Utah Code Annotated, 1953. Such tax credit shall be deducted from the taxpayer's tax liability for the taxable year in which such system is acquired and placed into service by the taxpayer. This provision shall apply retroactively to include the 1979 taxable year.

SECTION IV. Federal Tax Credit

The federal income tax credit for an alternative energy device as defined in this act shall be subtracted from the state credit prior to obtaining the state credit so that the combined credit, state and federal, would be 35% or $3,000 for claimants under Section II, and for claimants under Section III, 35% or $6,000.

SECTION V. Amortization of Alternative Energy Device

(1) Retroactive to the 1979 taxable year, and in addition to the income tax credit allowable, any taxpayer who completes installation of an alternative energy device upon real property located within this state prior to June 30, 1985,

which real property is either used in a trade or business or held for the production of income, may elect to amortize the adjusted basis of the alternative energy device based upon a period of sixty (60) months. In computing Utah taxable income, such amortization shall be allowed as a deduction from Utah adjusted gross income ratably over such sixty-month period beginning with the month in which such alternative energy device was completed or acquired and placed into service by the taxpayer. The election of the taxpayer to claim the amortization deduction allowed by this section shall be indicated in an appropriate statement attached to the taxpayer's income tax return for the taxable year in which such alternative energy device was completed or acquired and placed into service. As used in this section, "adjusted basis of the alternative energy device" shall mean an amount that is properly attributable to the construction, reconstruction, remodeling, installation or acquisition of such system.

(2) In any case where a taxpayer, hereinafter referred to as transferor, has qualified and elected to amortize the adjusted basis of an alternative energy device pursuant to subsection (1) and the real property equipped with such system is acquired and used in a trade or business or held for the production of income by another taxpayer, hereinafter referred to as transferee, and the transferor has not fully amortized the adjusted basis of such system as provided in subsection (1), the transferee shall be entitled to amortize that portion of the transferor's adjusted basis of such system remaining unamortized, but the total amount to be amortized by the transferee shall not exceed said transferee's adjusted basis in the system. The transferee shall amortize such remaining amount based upon the remaining portion of the sixty-month period unused by the transferor. The amount by which the transferee's adjusted basis exceeds the amount of the transferor's adjusted basis remaining unamortized shall be amortized over the useful life of the system..

SECTION VI. Administration

The Utah State Tax Commission in conjunction with the Utah Division of Water Rights and the Utah Energy Office is hereby authorized to administer this act and shall prescribe such rules, regulations and standards as may be deemed necessary to carry out the purposes of this act.

APPENDIX C

Alaska Funding Options

Alaska State Legislature

House

JUNEAU ALASKA

April 3, 1979

M E M O R A N D U M

TO: The Honorable Ernie Haugen
House Finance Committee

FROM: Milt Barker MB, Fiscal Analyst
Legislative Finance Division

SUBJECT: Power Project Financing

Following is a summary of the various funding sources and mechanisms that might be used to finance power projects:

1. General Funds can be appropriated to fund entire projects, front-end costs (reconnaissance and feasibility studies, engineering, etc.), reserves for revenue bonds, or partial project costs. Appropriation of general funds can be designated as coming from the reserve for energy facilities development account which is allocated 5% of mineral rents, royalties, and bonuses, or the reserve for capital outlay account which is allocated 25% of mineral revenues.

If the appropriation is made as a grant, it should probably be viewed as a subsidy. This would allow undertaking of projects that would not otherwise occur, although it is conceivable that a project would be subsidized even if capable of being conventionally financed in order to lower costs to users, say to fight inflation or provide or promote economic development.

If the general funds are appropriated as a loan or to the power project revolving fund or water resources revolving fund to be passed on as a loan which will ultimately be paid back out of project revenues, the appropriation may or may not involve a subsidy depending on the terms of the loan.

The payback of loans from these revolving funds will eventually create another source of funding; however, at present there are essentially no unloaned funds in these revolving funds.

2. Revenue bonds can be sold by the State or the Alaska Power Authority for construction costs. If the State were to combine its full faith and credit with the pledged revenues in a "double-barreled" bond a lower interest rate could be obtained. (See attached materials on HB 241 which proposes this combined revenue-general obligation bond.) Such bonds would need voter approval.

3. Guarantees of revenue bonds have been proposed from permanent fund income in HB 414. Bond underwriters estimate this technique could get interest rates down to within 1/4 to 1/2 of a percentage point of G.O. bonds. The advantage of this proposal is that permanent fund income is the only available source of revenue that can legally be dedicated, thus avoiding the necessity of making a large appropriation to a reserve or guarantee fund to assure the bondholder of monies to be paid in the event of a default.

4. Subsidies of revenue bonds are proposed in CSHB 414 (attached) by setting aside 50% of permanent fund income for guarantees of bonds for which it is estimated that project revenues will not be sufficient to pay debt service.

5. G.O. bonds or double-barrel bonds could be issued for projects that were not capable of paying the debt service. This would be another way of providing subsidies where needed and determined to be appropriate.

6. A loan can be made from the permanent fund principal. However, it will usually be cheaper for the State to issue bonds, at least GOB's or guaranteed revenue bonds, at tax-exempt interest rates of say 6% than to appropriate or loan their general and permanent funds which can be invested in taxable securities earning more like 8%.

7. The Alaska renewable resources corporation could fund power projects from their 5% of mineral revenues; however, generally their mandate is to assist innovative projects rather than standard hydroelectric facilities.

MBB:pw

Attachments

RECD OCT 15 1979

Introduced: 2/27/79
Referred: Finance

BY THE RULES COMMITTEE BY REQUEST OF THE LEGISLATIVE COUNCIL (for the State Energy Policy Committee)

IN THE HOUSE

HOUSE BILL NO. 309

IN THE LEGISLATURE OF THE STATE OF ALASKA

ELEVENTH LEGISLATURE - FIRST SESSION

A BILL

For an Act entitled: "An Act relating to the construction of power projects."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

* Section 1. AS 37.05.158(c) is amended to read:

(c) The proceeds of the reserve for energy facilities development account shall be <u>appropriated annually</u> [SUBJECT TO ANNUAL APPROPRIATION] by the legislature <u>and used for the construction of power projects</u>. Plans for expenditures from the account shall be submitted by the governor in accordance with the Executive Budget Act (AS 37.07) as part of his annual budget presentation.

* Sec. 2. AS 44.56.170 is amended by adding new subsections to read:

(g) Applications for loans under (b)(2) of this section shall contain information in the form prescribed by the authority to enable the authority to determine whether the construction costs of the project could also be financed under other provisions of AS 44.56. If it appears to the applicant that the construction costs of the project can be financed only under (b)(2) of this section, the application shall also be accompanied by an analysis which compares the anticipated revenues from the project which will be available after payment of estimated expenses of operation and maintenance to an assumed schedule, approved by the authority, of principal or sinking fund payments and interest payments which would be payable if the loan was secured from a private lender. If the anticipated available revenues are not at least equal to the assumed payments necessary, the authority may not make the

loan unless there is available in the fund or from any other source an amount which, when added to the aniticipated revenues, equals the assumed payments.

(h) The authority may establish an account in the power project revolving fund from which it may purchase revenue bonds issued applicants for loans under (b) of this section for the construction costs of the project. The revenue bonds may be secured by a senior, parity or subordinate pledge of revenues of a project and may be purchased by the authority at the same time bonds are issued to other investors secured by a senior, parity or subordinate pledge of revenues of the project. The revenue bonds purchased by the authority may bear interest at such rate or rates, mature at such time or times, and contain such other terms and conditions as the authority determines necessary to permit the sale of the bonds to other investors.

Sec. 3. AS 44.56.230 is amended by adding new paragraphs to read:

(8) "small-scale" means a facility producing not more than 25 megawatts of power;

(9) "construction costs" means the cost of constructing, equipping, modifying or expanding a project and includes the costs of feasibility studies, design work and reconnaissance studies.

Original sponsor: Gardiner

IN THE HOUSE BY THE FINANCE COMMITTEE

CS FOR HOUSE BILL NO. 241

IN THE LEGISLATURE OF THE STATE OF ALASKA

ELEVENTH LEGISLATURE - FIRST SESSION

A BILL

For an Act entitled: "An Act relating to state bonding."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

* Section 1. AS 37.15.010 is amended by adding a new subsection to read:

(b) General obligation bonds issued for acquiring, constructing, improving and equipping a state-owned utility or other revenue-generating enterprise may be additionally secured by a pledge of the revenue derived from operation. The bonds may contain the covenants which the state bond committee considers advisable concerning

(1) the rates or fees to be charged for services rendered by the public facilities, the revenue of which is pledged to the payment of the bonds;

(2) the deposit and use of the revenue of the public facilities;

(3) the issuance of additional bonds payable from revenue of the public facilities;

(4) the rights of the bondholders in case of default in the payment of the principal or interest on the bonds, including the appointment of a receiver to operate the public facilities;

(5) other covenants as the state bond committee determines.

APPENDIX D

District Heating Article

Geothermal Resources Council, TRANSACTIONS, Vol. 3 September 1979

DISTRICT HEATING: LEGAL & INSTITUTIONAL PARAMETERS

Kenneth A. Wonstolen

National Conference of State Legislatures - Denver, Colorado
Geothermal Policy Project

ABSTRACT

District heating is a proven vehicle for the direct application of geothermal energy. Successful systems currently exist in Iceland, France and the U.S., with numerous others in planning or construction stages. As geothermal resources come on-line, district heating is likely to be a widespread method of utilization. Such systems will provide centralized space-conditioning, as well as "cascaded" uses where feasible. Legal and institutional factors should be examined to ensure an adequate foundation for implementing geothermal district heating.

INTRODUCTION

District heating basically means the centralized distribution of heat to multiple end-users within a particular service area. Cascaded utilization would involve the successive use of progressively cooler fluid (e.g. industrial process heat, space-conditioning, greenhousing, aquaculture). The heat source may be geothermal, solar or fossil fuel. The use of cogenerated or waste heat would be especially appropriate. If alternate energy sources are used, supplemental fossil fuel capacity may be necessary to meet peak demands or emergencies. Various entities, both private and public, may constitute vehicles to develop and operate a heating district. Such a heating district will be presumed to be a utility.

INVESTOR-OWNED UTILITIES

The private sector may organize a heating district by incorporating an investor-owned utility. Some existing utilities may already have a steam distribution system in place. In other states, specific legislative authorization for utilities to provide district heating services may be required. Such authorization should allow the production and transmission of various heat mediums, including geothermal, for public and private use.

In order to incorporate a new investor-owned utility, or expand the scope of an existing one, certification from the Public Service Commission (PSC) will ordinarily be necessary. Such a "certificate of public convenience and necessity" may be difficult to obtain where the heating district would impinge on an existing heating utility (gas/electric) service area. State legislatures should consider exempting heating districts using alternate fuel sources or waste heat from the certification requirement. Alternatively, they may direct the PSC to grant certification where the public interest would be served, despite competition with an existing utility.

Investor-owned utilities are under the rate-making jurisdiction of Public Service Commissions, although this may not be clear where heating/cooling services are newly authorized. PSC control of utility rates normally is justified due to the monopoly status accorded a utility in a particular service area. State legislatures may consider, as an incentive to investment, exempting heating districts using alternate or waste heat sources from PSC rate-making jurisdiction.

Thus, legislatures should review at least three aspects of district heating via investor-owned utilities: the authorization to provide district heating services; the requirement of PSC cerification; and, the applicability of PSC rate-making jurisdiction.

PUBLICLY-OWNED UTILITIES

Counties, municipalities, special districts and other political subdivisions also are possible vehicles for implementing district heating. However, most political subdivisions possess no inherent powers. Thus, specific enabling legislation often will be necessary to authorize a political subdivision to organize a heating district. In some cases, municipal utility codes or authorizations to provide "water" may be liberally construed to cover district heating services. "Home rule" entities also may be able to implement district heating on their own initiative.

Where new enabling legislation is required, at least two approaches are possible. One is to enact a comprehensive, specific statute such as Oregon's Geothermal Heating Districts Act (ORS Chap. 523, 1977). Such an approach has the advantage of authorizing entities with a specific, single mandate. Alternatively, an existing political subdivision charter may be amended to include district heating, as Idaho has done with

its municipal code (S. 1062, 1979). While the district heating mandate to such entities may be diluted by existing functions, this approach has the advantage of utilizing personnel and infrastructure in place. In addition, where existing bonding and other powers are already adequate, the legislative drafting job is simplified.

Special districts, a species of local government, offer several advantages as district heating vehicles. They may usually cross other political subdivision boundaries and may sometimes include non-contiguous areas, important factors in matching resource and service load centers. Special districts may be able to impose differential taxing coincident with service areas. Their bond issues normally are exempt from constitutional debt limitations applied to cities and counties. And, they are organized and operated to perform a narrow range of similar functions.

Whatever political subdivision is chosen as a district heating vehicle, certain basic parameters need to be established. These relate to the method of heating district formation, the nature of its boundaries, its purposes and its powers, especially financial.

Formation of a heating district will normally involve resolutions of the governing bodies of participating political subdivisions or, perhaps, a local citizen initiative. A referendum on the matter may be required, especially where the district would have property taxation (ad valorem/special assessment) power. State legislative and/or Public Service Commission approval also may be necessary, although this is less common.

A heating district should have flexibility with regard to its boundaries. The crossing of municipal and county lines, and the inclusion of non-contiguous areas, may be necessary to match the heat source with load centers. Annexation capability would be a useful adjunct. The district also may require extra-territorial jurisdiction over sources of supply and facilities.

The purposes of a heating district will generally be to produce, distribute, utilize, sell and dispose of geothermal resources and other heat mediums for domestic, commercial and industrial use. The authority should be broad enough to include geothermal and cogenerated or waste heat sources, as well as the use of fossil fuels for peaking or emergencies such as well shut-downs. While centralized space-conditioning may often be the primary function, integrated development of cascaded uses should be within the purview of the district.

Since political subdivisions are inherently not risk-taking entities, the exploration function may require an innovative approach. Exploration may be an appropriate function for the district where the geothermal resource is demonstrated or where outside (state/federal) capital is available. Otherwise, joint enterprise ability - joint power authorities (with other political subdivisions) and joint ventures (with private industry) - may be necessary to obtain financing. Alternatively, franchises may be granted to private companies to explore for and produce the resource under a contract of sale. Exemption of such production from PSC rate-making jurisdiction would be an appropriate incentive to attract private risk capital. Publicly-owned utilities already are exempt from PSC jurisdiction in most states.

A geothermal heating utility will require the range of powers of a body corporate and politic: legal status to sue and be sued; ability to contract for services and employ personnel; ability to acquire and dispose of property (within and without the district); ability to fix rates for service; ability to apportion user charges and enforce collection (usually via liens); and, the ability to generate capital.

The most likely avenue for capital financing of a geothermal heating district will be revenue bond issues. Service charges would be designed, and may be statutorily required, to retire revenue bond principal and interest, as well as covering operating expenses. However, the ability to levy special assessments may be a necessary concomitant in order to cover revenue shortfalls. Revenue bond issues are not subject to constitutional debt limits and usually need not be approved in an election.

Where the district has ad valorem taxation power, it may be authorized to issue general obligation bonds. Such bonds also may be retired by project revenues but are supported by the full faith and credit (taxes) of the issuing district. General obligation bonds will usually be subject to debt limits if the issuing authority is a municipality or county. Debt limits for special districts are less common, and if applicable, special district debts are generally not cumulative with other local political subdivision debt. General obligation bond issues may need to be approved in an election.

Whatever the bond option chosen, marketability is subject to legislative initiative. State legislatures should consider declaring heating district bonds a legal investment for all banks, trust funds, school funds and other institutional investors. Such accreditation would expand the capital market for the bonds.

A final consideration regarding the powers of heating districts is the grant of easements and eminent domain. Easements along, across and under public byways and existing transmission corridors would assist the district in forming its distribution network. The power to condemn easements on certain private property also may be necessary to complete the system. Consideration may be given to extending the eminent

domain power to existing geothermal wells and sources of supply, although such a proposal is likely to be controversial.

The problem of condemning existing wells or their forced incorporation into a heating district may be unavoidable where single or multi-family wells are already in use. Geothermal production for a heating district may result in reservoir drawdowns, rendering such wells useless. District monetary liability for such events, as opposed to the issuance of an injunction restraining operations, would result, as a practical matter, in condemnation. A possible method to minimize such liability would be the designation of system-wide economic drilling levels, above which no liability would accrue to the district.

Thus, the legislative agenda for public district heating is manifest. The charters of existing political subdivisions should be examined to identify suitable candidates and amended as necessary. Alternatively, a comprehensive, new district heating statute may be enacted. Formation, boundaries, purposes and powers are the parameters which need to be established for public heating districts.

CONCLUSION

While this paper has focused on the specific legal and institutional parameters of geothermal district heating, there are additional factors subject to legislative initiative which will generally affect the pace of implementing such systems. These include: public funding for demonstration projects; geoheating public buildings; innovative and compatible building codes and zoning ordinances; public education and technical assistance; loan programs and tax incentives for alternate energy systems; royalties and taxes on resource production; streamlined regulatory and leasing procedures; and, resolution of ownership and water rights issues. While beyond the scope of this paper, the NCSL geothermal project is prepared to assist states to deal with these policy areas.

APPENDIX E

California Proposals on Earmarking Geothermal Lease Revenues

FACT SHEET

COMPARISON OF THE GEOTHERMAL RESOURCES DEVELOPMENT FUND (GRDF) AND THE BOSCO BILL (AB1905)

- Both bills establish procedures for dispersing the revenues returned to the State as a result of base scales on federal land pursuant to the Federal Land Policy and Management Act (FLPMA). Under FLPMA, half the revenue from bonus bids on geothermal leases, as well as from rentals and production royalties are returned to the State. The State is directed to place priority on using the funds to offset the impacts of geothermal development.

AB 1905	GRDF
o All of the funds returned to the State go directly to the county where the lease sale is held (county of origin)	o 60% of the funds go to the county of origin. 25% is available to assist other counties with known or potential resources plan for such development 15% is available to supplement State agency programs which will promote environmentally sound and expeditious geothermal development.

o Allows counties of origin to spend funds on anything.	o Requires that funds only be expended on geothermal related activities.
o Funds would go only to counties where a federal lease sale has occured. There are at least 17 counties in California with geothermal resources on federal, state or private lands. At least 4 of these counties will not have a federal lease sale, although there will be development occuring on State and private lands. They would receive no funds under this bill to plan for geothermal development.	o Funds would be available to all counties where it is needed to plan for geothermal development and not just counties with federal lands or lease sales.
o Counties of origin will not be able to receive funds until 6 to 12 months after the lease sale has occured. This would make it difficult, if not impossible, to carry out advance planning prior to development pressures already occuring.	o Funds would be available for all counties, well ahead of lease sales and development pressures.
	o Specifies that funds would be available to local and State agencies to permit, monitor and inspect geotherm activities.

	o Specifies that funds would be available to local governments and State agencies to provide public services necessary to support geotherma activities.
o No such provision	o Would make funds available to local governments and State agencies to install geothermal district heating systems and demonstrate other direct heat and electrical applications.
o No such provision	o Provides for an interagency counsel with local and public membership to determine proje which merit funding support.
o No such provision	o Requires biennial reporting of expenditures and accomplis ments made as a result of projects undertaken.
o No such provision	o Requires reevaluation of program at the end of 10 years.

ASSEMBLY BILL No. 1905

Introduced by Assembyman Bosco
(Principal coauthor: Senator Keene)

May 21, 1979

REFERRED TO COMMITTEE ON RESOURCES, LAND USE, AND ENERGY

An act to add Chapter 6 (commencing with Section 3790) to Division 3 of the Public Resources Code, relating to geothermal revenues, and declaring the urgency thereof, to take effect immediately.

LEGISLATIVE COUNSEL'S DIGEST

AB 1905, as introduced, Bosco (Res., L.U., & E.). Geothermal resources: federal lease sales: disposition of revenues.

Existing state law does not provide for the distribution of moneys received by the state from federal geothermal lease sales of public lands. Existing federal law provides for 50 percent of the moneys received for geothermal leases under the federal Geothermal Steam Act of 1970, as amended, to be paid to the state where the leased lands are located.

This bill would provide that all moneys received by the state from the federal government for federal geothermal leases within California be deposited in the State Treasury and allocated by the Department of Finance to the counties socially or economically impacted by the federal geothermal leases generating the revenues.

This bill would take effect immediately as an urgency statute.

Vote: ⅔. Appropriation: no. Fiscal committee: yes.

State-mandated local program: no.

The people of the State of California do enact as follows:

SECTION 1. Chapter 6 (commencing with Section 3790) is added to Division 3 of the Public Resources Code, to read:

CHAPTER 6. GEOTHERMAL REVENUES

3790. All moneys received by the state from the federal government for sales, bonuses, royalties, and rentals of public lands within the State of California under the federal Geothermal Steam Act of 1970, as amended (Chapter 23 (commencing with Section 1001) of Title 30 of the United States Code) shall be deposited in the State Treasury and allocated by the Department of Finance to the counties socially or economically impacted by the federal geothermal leases generating such revenues. The revenues allocated to counties under this section shall be for the purpose of planning, construction and maintenance of public facilities, and provision of public services.

SEC. 2. This act is an urgency statute necessary for the immediate preservation of the public peace, health, or safety within the meaning of Article IV of the Constitution and shall go into immediate effect. The facts constituting such necessity are:

Moneys will be received from the federal government in July from geothermal revenues and it is essential that act be effective at that time.

O

LEGISLATIVE INTENT

It is the intent of the Legislature to encourage alternative energy development in the State. Further, the Legislature recognizes that California has substantial geothermal energy potential. Geothermal resources offer excellent energy sources which are advantageous in that: (1) they are indigenous to California; (2) their development provides a stimulus to the State's economy; (3) the environmental impacts of geothermal direct heat may be more acceptable than those associated with traditional electrical generation, and mitigation of such impacts is better understood than those associated with traditional electric generation technologies; (4) their development reduces dependence on other fossil fuel sources; (5) geothermal power plants are small scale distributed technologies which can increase system reliability and flexibility; and (6) the lead time for electric power plant construction is relatively short. Based on the opportunities afforded by geothermal development, it is the intent of the Legislature to promote environmentally sound geothermal resources development.

POLICY

It is the policy of the Legislature to encourage environmentally sound geothermal resources development. It is further the policy of the Legislature to reduce the State's dependency on scarce fossil fuels. Therefore, in order to ensure that geothermal development occurs in an orderly and sound fashion, the Legislature hereby declares that all revenues derived from the U. S. Bureau of Land Management's activities under the Geothermal Steam Act of 1970 and distributed through Section 317 of the Federal Land Policy and Management Act (FLPMA), PL 94-579, be appropriated in the following ways:

GENERAL PURPOSES

All monies returned to the State pursuant to Section 317 of FLPMA shall be used to promote geothermal resources development related activities including, but not limited to:

(1) Carrying out necessary planning activities to ensure orderly, environmentally sound geothermal development in as expeditious a manner as possible, including, but not limited to:

(A) resource assessment and exploration technology

(B) local and regional planning and policy development and implementation for complying with State and federally mandated programs

(C) identification and incorporation of feasible mitigation measures necessary to offset adverse impacts to the State's natural resources including the necessary collection of baseline data and monitoring

(D) preparing geothermal elements to county general plans, zoning and other ordinance and accompanying environmental and planning documents.

(2) Providing the necessary public services required to implement, mitigate and enhance geothermal resources development, including, but not limited to:

(A) processing requests and preparing permit application,s related environmental documents, monitoring and inspection of geothermal activities to insure compliance with local, regional and State laws, regulations, ordinances and other geothermal related activities: identifying and carrying out actions necessary to mitigate impacts as well as participating in research and development activities

(B) planning, construction, operations and maintenance of necessary public services.

(3) Projects demonstrating the technical feasibility and economics of geothermal direct heat and electrical applications.

(4) Other projects that can be shown to promote development consistent with the policies of this Act.

SPECIFIC PROVISIONS

Public Services means those services which local jurisdictions must provide as a result of geothermal development activities.

Local Jurisdictions means legal subdivisions of the State, including cities, counties, and special districts.

County of Origin means any county in which the Bureau of Land Management lease sale occurred.

Geothermal Resources Development Account means the account established in the State Controller's Office which shall consist of all monies returned to the State by the U. S. Treasury pursuant to Section 317 of the Federal Land Policy and Management Act.

Geothermal Resources Development Fund means those funds which are earmarked for disbursement by the Council and which shall consist of 40 percent of the Geothermal Resources Development Account.

Potential or Known Geothermal Resources means those areas of the State in which there is an identified geothermal resource either as: a) known geothermal resource area (KGRA) as designated by the U. S. Geological Survey; b) geothermal resource areas as designated by the Division of Oil and Gas; or, c) areas with surface manifestations and other indications of the presence of a geothermal resource.

The Geothermal Resources Development Fund and the Geothermal Resources Development Account are hereby created. All monies in the Account shall be expended for the purposes stated in the Act.

There is in the Department of Finance an advisory body known as the Geothermal Coordinating Council, hereafter known as the Council, which shall establish guidelines for the administration of monies in the Geothermal Resources Development Fund.

The Council shall have the authority to determine which local jurisdictions have potential or known geothermal resources for the prescribed purposes of this Act.

The Council shall coordinate with the California Energy Commission's statewide planning policy and research and development efforts, as well as other affected State agencies' geothermal planning and program activities, for the promotion or regulation of geothermal energy resources in establishing its guidelines for the administration of the Geothermal Resources Development Fund.

APPENDIX F

Life-Cycle Costing Bill

ALTERNATIVE ENERGY SYSTEMS FEASIBILITY STUDY ACT

1979

GENERAL SESSION

Discussion Draft

_____B. No._____ By_____

AN ACT RELATING TO THE PREPARATION OF FEASIBILITY STUDIES ON ALTERNATIVE ENERGY SYSTEMS FOR NEW OR RENOVATED PUBLIC BUILDINGS.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF UTAH:

SECTION I. A new clause (c) is added to Section 63-9-49 (2) (UCA 1953) to read:

(c) (new material) Prepare an alternative energy systems feasibility study prior to the commencement of siting, construction or major renovation of buildings owned by the State of Utah and its political subdivisions. This provision applies to buildings having more than 20,000 square feet of usable floor space. The study shall employ life cycle cost analysis and include simulations of system performance over a year's operating period. At least two non-fossil energy systems shall be evaluated, including the utilization of geothermal or hot water resources where available. The study shall guide the selection of building site, design and energy systems.

LEGIS/50—The Center for Legislative Improvement is a national nonpartisan, not-for-profit organization working for state government improvement in the 50 states. It was founded in 1965 as The Citizens Conference on State Legislatures by citizens in education, labor, business, government, agriculture, and civic affairs.

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Denver, Colorado 80204
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PLEASE NOTE: THE PRECEDING PAGES WERE TREATED AS A UNIT IN THE ORIGINAL DOCUMENT.

Logis 50

UTILITY POLICY, CONSERVATION & EMERGING TECHNOLOGIES ONYX ROOM

Workshop Chairman - Rep. George Sheldon - Florida
Rep. Bill Edwards - Wyoming
Staff Assistant - Linda Waldman

Participants:

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Rep. Anne Just	Vermont
Rep. Margaret Bronson	Alaska
Rep. Paul Bolster	Georgia
Sen. Charles L. Butts	Ohio
Ably. Steve Coulter	Nevada
Sen. Joseph Kurada	Hawaii
Rep. Herb Hunnekens	Montana
Sen. Harold Dover	Montana
Rep. William Bevers	Indiana
Rep. Lars Herseth	South Dakota
Rep. Perry Bullard	Michigan
Rep. John Ainley	Minnesota
Rep. Brian Rogers	Alaska
Rep. Mike Ferrell	Wisconsin
Rep. Clifford Uwaine	Hawaii
Rep. Robert Eisengrein	New Hampshire
Rep. Karen Benson	Missouri
Rep. G. Robert Ferguson	Mississippi
Rep. Mary Kilmarx	Rhode Island
Sen. Ed Fadeley	Oregon
Sen. Chris Beutler	Nebraska
Del. Robert Scott	Virginia
Guido Canulla	Rhode Island
Sen. Bill Curry	Connecticut
Rep. Rollin K. Howell	Iowa
Sen. Robert D. Garton	Indiana
Sen. John Arnold	Delaware
Rep. Sherry Huber	Maine
Rep. Dick Kloubec	North Dakota
Sen. Polly Baca-Barragan	Colorado
Sen. Frank Knoll	Minnesota
Sen. Rolland Redlin	North Dakota
Sen. Vearl Crystal	Idaho
Tom Steich	Maryland

Steven Moss	Colorado
Adrienne Anderson	Colorado
Richard Westfall	Colorado
Sherry Valentine	NCSL
Jim Patterson	Colorado School of Mines
George Tung	Colorado
Jerry Hill	Amoco/Atlanta

Jerry Pfeffer
254-8256

LEGIS - 50

Utility Policy Workshop

Preliminary Agenda

I. National Energy Policy Objectives in the Utility Sector

1. Assure adequate and reliable bulk power and natural gas supplies.

2. Reduce utility reliance on oil and gas for electric power generation.

3. Promote the use of renewable energy resources and decentralized systems where economically justified.

4. Provide incentives for increased efficiency and conservation and in the use of electricity and natural gas.

5. Make more efficient use of the existing investment in bulk power generation and transmission facilities thereby reducing the need for new facilities.

6. Increase the efficiency of the regulatory decision-making process in the utility sector while assuring effective participation by all concerned parties.

II. Federal Programmatic Efforts

1. Power Supply & Reliability

- o Regional need-for-power assessments and workshops.
- o Weekly bulk power monitoring winter reports to states and utilities.
- o Annual 10-year and 20-year reviews and assessment of regional power supply adequacy.
- o Investigation of bulk power outages
- o Reliability study (PURPA).

2. Reduction in Utility Oil-Gas Consumption

- o Coal-conversion program (Fuel Use Act)
- o Substitution of natural gas for oil
- o Power-wheeling (coal-by-wire)
- o Innovative technologies (e.g., coal-oil mixtures)

3. Promote Solar & Renewables

   - o Demonstration projects with PUC's and utilities.
   - o Information transfer to state regulatory agencies and utilities.
   - o PURPA guideline on non-discriminatory rates for solar and renewables.
   - o Intervention before state and federal regulatory agencies.
   - o Cogeneration rules (PURPA)

4. Promote Conservation

   - o Rate design, load management and conservation project demonstrations sponsored jointly with state regulatory agencies.
   - o Rate design guidelines and interventions under PURPA.
   - o NECPA modifications needed to provide greater state flexibility in conservation service program design.
   - o Analysis and documentation of alternative utility roles in conservation service programs.
   - o State workshops and information transfer.

5. Increase Utility Efficiency

   - o Regulatory incentive to increase powerplant availability.
   - o Data compilation and analysis of comparative system performance.
   - o Promote power pooling and economic dispatch through studies and regulatory interventions.
   - o Identify needed transmission links to promote greater system coordination.

6. Improve Regulatory Efficiency

   - o Grants to state agencies to assist in PURPA implementation.
   - o Regulatory efficiency studies and research.

- o Development of new regulatory tools and processes.
- o Workshops, seminars, educational programs for PUC staff.
- o Support for National Regulatory Research Institute.
- o State Consumer Office Grants.
- o Consumer Intervenor training progarms.

III. State Legislative Agenda

1. Power Supply & Reliability

- o Coordinated powerplant siting and licensing procedures.
- o Coordinated need-for-power determinations with neighboring jurisdictions.
- o Support for PUC efforts to provide utilities with adequate revenues to assure timely completion of needed facilities.

2. Reduction in Utility Oil-Gas Consumption

- o Support for coal conversion efforts (e.g., air quality waivers, financial incentives, etc.)
- o Eliminate tariff barriers to purchased power used to displace oil.
- o Increased oversight on automatic flow-through of oil costs through fuel adjustment clauses.
- o Financial support for innovative projects.

3. Promote Solar & Renewables

- o Financial incentives (tax credits, etc.).
- o Provide flexibility for varying degrees of utility involvement in solar and renewables.
- o Facilitate utility access to waste products and biomass materials.
- o Adopt rate designs which allow solar and renewables to compete on their merits (i.e., non-discriminatory rates).
- o Adopt rate designs which encourage cogeneration projects with consideration of fuel-use and reliability implications.

4. Promote Conservation

- o Assure serious PUC consideration of PURPA rate-making and regulatory standards and adoption where shown to be cost-effective.
- o Conduct periodic oversight hearings on utility conservation program effectiveness.
- o Provide adequate support for State agencies responsible for NECPA implementation.
- o Financial incentives (tax credits, etc.).

5. Increase Utility Efficiency

- o Eliminate regulatory barriers to coordinated operation (i.e., power pooling) and economic dispatch.
- o Eliminate barriers to utility interconnection.
- o Provide regulatory incentives for improved utility performance (e.g., incentive rate of return).
- o Conduct periodic oversight hearings on comparative utility performance (intra-State and inter-State).

6. Improve Regulatory Efficiency

- o Assure adequate financial and technical support for all State agencies responsible for utility regulation.
- o Consolidation of overlapping or fragmented regulatory functions.
- o Provide PUC's with needed flexibility to undertake innovative regulatory practices.
- o Encourage inter-State and regional regulatory proceedings where issues transcend single political jurisdiction.
- o Support NRRI.
- o Clarify roles of PUC's versus state energy offices.
- o Establish state consumer offices to represent consumer interests before PUC's.
- o Provide intervenor funding to assure effective participation of all concerned parties in state regulatory proceedings.

14 DEC 1979

STATE AND LOCAL CONSERVATION GRANT PROGRAMS

Program Description

The Schools and Hospitals Grants Program authorized in the NECPA in November 1978 provides 50/50 matching grants for energy audits and retrofit projects for schools and hospital buildings.

The Local Government and Public Care Buildings Grant Program authorized under NEPH provides 50/50 matching grant monies for energy audits.

The State Energy Conservation Grant Program authorized by EPCA in 1975 and the Supplemental State Energy Conservation Grant Program authorized by ECPA in 1976 provide 100% grant funds for state-wide conservation programming.

The Energy Extension Service provides 100% grant funds for targeted energy information dissemination and energy outreach.

Discussion Points

- The State Energy Offices will be the focal point for Federal monies going into each State.
- The responsibilities of State Energy Offices has increased enormously over the past three years.
- The State Energy Offies should be the focal point and the coordination point for intra-state activities.
- SEO's need strong support from State legislatures.
- Need to review existing authorities for conservation programming and develop new authorities to meet Federal requirements and meet defined State needs.
- State Government Energy Management Program
    1. Energy Savings and cost avoidance.
    2. Set example and provide leadership to other elements within State.

- Energy Conservation in Building Codes is an example.
  1. Not meeting Federal requirements.
  2. Preparation for BEPs
  3. Influence on substate governments.

Potential Outcomes

- Recommendation that States establish energy management programs for State buildings.
- Recommendation that States provide resources and guidance to substate units for conservation in the public sector.
- Support SEO's request for matching funds for the NECPA programs.
- Recommendation that State legislatures support:
  1. Close cooperation between legislative staffs and SEO in setting State energy policy.
  2. SEO's be strengthened to be able to fully review and analyze the impact of Federal and State energy policy proposals.
  3. SEO's be supported in their participation in the development at Federal energy policies and programs.

WEATHERIZATION ASSISTANCE PROGRAM

1. Program operates through State offices to Community Action Agencies.
2. Program funded at $200 million per year.
3. Two major problems:
    a. Matching labor to materials.
    b. Addressing the needs of low-income tenants.
4. Waiver Procedure to address labor needs.
5. Status of Program:
    1. $213 thousand as of October 31.
    2. 15-20 thousand homes/month.
    3. Need to double that by spring.
6. State legislators can help by assisting the State Offices in their management of the program.
    1. Expediting the flow of funds.
    2. Keeping accurate records.
    3. Insuring quality workmanship.
    4. Insuring fiscal accountability.

DR. KENNETH FRIEDMAN
ACTING DIRECTOR, POLICY COORDINATION AND SUPPORT DIVISION
POLICY, PLANNING AND EVALUATION
OFFICE OF ASSISTANT SECRETARY
CONSERVATION AND SOLAR ENERGY

ALCOHOL FUELS
DENVER, COLORADO
DECEMBER 18, 1979

1. ALTERNATIVE RENEWABLE FUELS: LIQUID SOLAR ENERGY

2. MEASURES OF PRESENT GASOHOL CONSUMPTION

3. PRESENT PODUCTION CAPABILITIES
   - (A) LARGE SCALE 10 - 50 MILLION/GALLONS/YR
   - (B) SMALL SCALE/APPROPRIATE TECHNOLOGY

4. FEEDSTOCK POSSIBILITIES
   - (A) CORN
   - (B) BAGASSE
   - (C) WHEAT
   - (D) CHEESE WHEY
   - (E) CELLULOSIC MATERIALS
   - (F) SWEET SORGHUM
   - (G) WOOD

5. U.S. LIQUID FUELS CONSUMPTION
   - (A) TRENDS
   - (B) IMPACT OF IRANIAN EMBARGO

6. Issues Impacting Future Gasohol Consumption in the U.S.
   (A) Food vs. Fuel
   (B) End-use issues: fuel economy, performance, impact on engines, costs, distribution problems.
   (C) Net energy balance
   (D) Imports
   (E) End-use suitability -- non-highway uses

7. Present Government Incenives
   (A) State
   (B) Federal

8. Section 932 Implementations for Alcohol Fuels

9. Possible State Roles
   (A) Fleet demonstration activities
   (B) Gasoline tax incentives
   (C) Incentives for alcohol fuels production

10. Present Federal Government Programs
   (A) Biomass Program
   (B) Alternative Fuels Utilization Program

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Mr. Gene Ecklund -- End-Use Applications
Telephone: 202-252-8055

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RECENT OVERVIEW STUDIES

U.S. DEPARTMENT OF ENERGY, "THE REPORT OF THE ALCOHOL FUELS POLICY REVIEW," JUNE 1979, 119 PP.

CONGRESS OF THE UNITED STATES, OFFICE OF TECHNOLOGY ASSESSMENT, "GASOHOL: A TECHNICAL MEMORANDUM," SEPTEMBER 1979, 71 PP.

LEGIS/50 The Center for Legislative Improvement

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January 4, 1979

Representative Brian Rogers
P.O. Box K
Fairbanks, Alaska 99701

Dear Representative Rogers:

I am very pleased that you were able to attend the National Legislative Town Meeting on Energy and hope that you found it productive. I believe that state legislators are finally beginning to be recognized as major innovative forces in the nation's energy policy-making, and the Town Meeting clearly shows why that is the case.

The Town Meeting should encourage the exchange of information among legislators interested in energy policy. To promote that, I am enclosing a list of legislators who attended the conference. This is just the first of several contacts we will make with you as a follow-up to the meeting. Please feel free to call on us if we can be of any service to you.

Good luck in your legislative activities during 1980.

Sincerely,

James E. Arnold
Executive Director

JEA/lg
Enclosure

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December 17-19, 1979
Denver, Colorado

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Ncat the National Center for Appropriate Technology

What Is Appropriate Technology?

A response to a problem. As prices rise faster than income, many Americans find it difficult to pay even their basic bills. A recent Community Services Administration study reflects the critical nature of this situation for the poor: Nearly 5 million families below the poverty line are falling short by approximately $70 million every month in their ability to pay for heat, electricity and gasoline.

And energy costs are not the only problem. Low-income people also face financial burdens imposed by our large-scale, capital-intensive, centralized systems for production and distribution of food, health care and other necessities of life. But there are hopeful signs.

Appropriate alternatives. The sun, wind and water have been harnessed to produce energy and heat; greenhouses and intensive organic gardening are being used to grow nutritious food; decentralized health-care systems are providing low-cost medical services; composting toilets and methane digesters are producing fertilizers and fuels; community-based industries are creating products and jobs for local people.

These and similar technologies, designed to meet specific human needs and fit their local settings, are termed "appropriate technologies." Their purpose is to help people become more self-reliant, and to improve the quality of urban and rural life -- particularly for the nation's poor.

An appropriate technology:

* is relatively inexpensive and simple to build, maintain and operate;
* uses renewable resources rather than fossil fuels, and does not require high energy concentrations;
* relies primarily on people's skills, not on automated machinery;
* encourages human-scale operations, small businesses and community cohesion;
* is protective of human health, and is ecologically sound.

Why the National Center?

NCAT's mission. The widespread problems stemming from our dependence on scarce and costly resources touch the entire country, but have their most damaging impacts on the poor. The National Center for Appropriate Technology, an independent, non-profit corporation, has been funded by the U.S. Community Services Administration (CSA) to develop and apply appropriate technologies to specific needs of low-income people, and to promote locally based programs that develop individual and community self-reliance.

A comprehensive program. The National Center's professional staff, with its headquarters in Butte, Montana, offers a comprehensive nationwide program of technical research and assistance, small grants, information and local support activities. NCAT's office in Washington, D.C., maintains close contact with national policymakers, Congress, administrative agencies and other organizations, tracking national legislation and providing information needed for wise policy formulation.

Goals of the Center are to:

* develop appropriate technology solutions to energy-related and other problems experienced by low-income communities;
* conduct research to assure that the poor are afforded high-quality, cost-effective opportunities in appropriate technology;
* promote awareness and use of appropriate technology in low-income communities;
* provide financial and technical assistance to encourage the use of small-scale, community-based technologies;
* encourage public and private sectors to adopt policies that overcome existing legal, economic and other barriers to widespread use of appropriate technologies by the poor.

What's Being Done by Ncat?

Technical research. The National Center's technical staff conducts extensive research utilizing passive and active solar test facilities, a solar greenhouse and other resources at its Montana headquarters, and at other sites around the country. The technical program is focused on applied research - developing and testing model applications of appropriate technologies with potential for immediate impact on the problems of low-income consumers and their communities.

The NCAT technical staff comprises three research task groups:

* renewable energy, including passive and active solar systems, wind generation and small-scale hydro power;
* building technology, home weatherization, energy conservation, housing rehabilitation and transportation planning;
* agriculture, biofuels and recycling, with concentrations in greenhouse and organic farming methods, community gardening, methane production and wood heat.

Small grants. Promising appropriate technology projects in local communities receive financial assistance and technical support under the National Center's small grants program. During its first two years of operation, the Center has awarded grants totaling more than $1.7 million to 173 projects.

The NCAT grants program is focused directly on the principal research and development aims of the Center. The objective is to provide the funds necessary to demonstrate and utilize appropriate technologies in low-income communities.

Funded projects range from passive solar greenhouses and community gardens to home weatherization programs, solar job-training, low-cost housing and waste-recycling centers. A complete listing of grants is available from the Center at no charge.

How large are NCAT grants? The National Center's average grant is in the range of $5,000 to $10,000.

Who is eligible? NCAT may provide funding for projects sponsored by Community Action Agencies (CAAs); Community Development Corporations (CDCs); other local, non-profit CSA grantees; Indian tribes; and other public agencies.

How can you apply? The Center periodically announces requests for proposals (RFPs) that outline specific types of projects eligible for funding. To receive NCAT grant announcements, please write to the National Center's grants office in Butte.

Grants are awarded on a competitive basis, and only proposals responding to specific announcements are eligible for review and funding.

Field support. The National Center employs ten field representatives who help NCAT assess local needs and resources, provide decentralized services and develop local and regional networks for information-sharing and mutual assistance. In special cases, the Center may send technical staff members from Butte to advise and support local groups, funded projects, Community Action Agencies, state energy offices and other organizations or activities.

Information services. NCAT's resource center in Butte maintains one of the finest, most complete collections of appropriate technology materials in the United States. It collects books, periodicals, newsletters, reference works, research data and reports, policy papers and other documents on a wide range of activities related to appropriate technology: community development, agriculture, education, the environment, housing, health, employment, land use and policy alternatives, as well as technical research and development information.

Besides being a valuable asset to NCAT staff activities, the resource center provides reference services for individuals and groups seeking specific information on various aspects of appropriate technology, and answers hundreds of mail and telephone inquiries each year.

Published materials. The Center's own publications range from sophisticated technical reports and policy studies to do-it-yourself instructions for conserving energy in the home. All are aimed at spreading the word about appropriate technology among diverse audiences, from local grassroots groups to national policymakers.

The publications include research papers, survey reports, training manuals, bibliographies, resource lists, how-to brochures, and issue analyses probing various social, economic and legal barriers to adoption of appropriate technologies. Most NCAT publications, including a current catalog and order form, are available free from the Center's Butte office.

How Can You Get Involved?

The National Center for Appropriate Technology's job is a big one. Its work can be effective only through the cooperation and involvement of individuals who share the vision of a decentralized, self-sufficient, appropriate future. The Center exists as a national program only to provide the most effective support possible to assure the success of local programs and projects based on community participation.

Across the country, there are thousands of individuals, community groups, agencies, networks and centers advocating and practicing appropriate technology. Through its outreach and information programs, NCAT seeks to facilitate the networking required to bring these various elements together. Beyond that, the special role the National Center plays is that of providing the appropriate technology world with the technical capability to develop, test and evaluate applications of appropriate technology that work and that are useful to low-income people.

The Center is also seeking ideas in appropriate technology that can be utilized by low-income people. Of particular interest are ideas suited to self-help projects or small-scale manufacturing processes.

Mobilizing resources to support additional work in appropriate technology also is important, not only for the National Center but for local programs as well. The NCAT staff is interested in expanding access to financial and other resources for continuation of this vitally important work.

For More Information...

Requests for publications, or for information about NCAT and appropriate technology, may be directed by letter or by phone to the Information staff. Funding inquiries are answered by the Grants office.

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TOWN MEETING ON ENERGY

December 17-19, 1979
Denver, Colorado

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