SCOMM

#44:10

D R A F T

A CITIZEN'S PLATFORM FOR ALTERNATIVE ENERGY

We the people of Alaska recognize the foolhardiness of relying almost entirely on petroleum for our energy needs. Even though Alaska is a primary oil-producing state, we cannot afford to risk shortages that will lead to severe hardship in rural Alaska, nor can we idly accept the continuing cost increases that will result as the OPEC nations continually raise prices.

Alone, of all the states, Alaska has a tremendous budget surplus generated by increased petroleum revenues. The esthetics of applying a major portion of this surplus, about 3-billion dollars, to reducing our petroleum addiction is very compelling. We, the residents of Alaska, rural and urban, mandate our elected representatives to allocate 1.5-billion dollars over the next three fiscal years to developing ecologically sound, locally-oriented energy sources.

POLICY CAUCUS

UTILITIES

1. Rate-use charges should not be cheaper on the more energy used - large user rates should reflect the amount they use; small businesses and homeowners should be able to get lower rates for use of less electricity.

2. Utilities should offer energy conservation consultation services such as home audits, insulation contractors list, etc., free of charge to their customers.

3. Utilities should offer a break of 15% to households and businesses that meet energy efficiency standards such as insulation, storm windows, weather-stripping, etc.

4. Utilities should have major energy conservation PR programs to let customers know how to conserve energy and what systems for conservation are available from the utility or from the private sector.

5. Utilities should have more public involvement in policy making.

6. Existing utilities should be required to purchase excess electricity from on-site small power generators. The utilities pay a reasonable and fair price for this energy, and should provide back-up power at a fair and reasonable price.

7. Utilities in Alaska which do not fall under the provisions of the Public Utility Regulatory Policies Act of 1978 should be required to perform a cost of service analysis which is detailed in section _____ of that Act. This includes, but is not limited to, an analysis of the potential of lifeline rates, declining block rates, load management, interruptible power rates, and time of day rates. As in the PURPA legislation, the public service commission should enact the rates identified unless there is compelling reasons for not doing so.

8. The ~~Public Service Commission~~ APUC, in evaluating a request for a rate increase by a utility in order to pay for new generating facilities, should, before ruling on the rate request, require the utility to evaluate the cost of generating an equal amount of energy through conservation or through the use of renewable energy sources.

Absolutely

9. Utilities should be required to finance energy conservation and renewable energy investments, either by expensing the investments or including them in their rate base. Such financing arrangements should not be less than ten years duration.

10. Utilities should be permitted to lease renewable energy equipment, if by doing so they do not undermine competition in the alternative energy sector.

POLICY CAUCUS

FINANCING

MORE

1. State and local governments should provide aid in the form of consultation services and financing to enable renters to do energy conservation measures on their homes and apartments.
2. Low interest loans, tax breaks for landlords who do solar retrofits and energy conservation measures on their property.
3. Loans available from banks that give 4% lower interest rates for energy efficient homes (insulation, storm windows, etc.).
4. Alaska should implement a tax credit for both active and passive solar systems. The credit should be in the form of a rebate, so that the low income population can receive benefits as well as the upper income population. The credit should be in addition to the federal tax credit, and should be no greater than 20% of the installed cost of the system.
5. In the bush areas of Alaska, the state should provide low cost investment capital for renewable energy sources which are already competitive with gasoline priced at $4 per gallon, and electricity priced at .15 cents per kilowatt hour or above.

RESEARCH & DEVELOPMENT

The State of Alaska should develop a strong Research and Development program that would:

NOT A STRONG PGM

1. Buy and install 200 anemometers across the state.
2. Buy and install 25 pyranometers across the state (pyranometers = solar radiation measuring devices).
3. Develop a system for monitoring the thermal performance of buildings.
4. Study winter flow data for the interior rivers.
5. Expand the geothermal drilling program.
6. Build/Study energy/dollar savings of four prototype solar houses in 17 cities in Alaska via computer techniques.

POLICY CAUCUS

MARKETING

1. Businesses who supply renewable energy systems should be actively encouraged to locate outlets in Alaska.

2. Tax credits on transportation costs of shipping alternative energy equipment to Alaska should be given.

3. State and local governments should have a major PR campaign to inform and educate Alaskans on renewable energy hardware, feasibility and where to go for information about systems, retrofits and financing.

4. Give incentive to businesses and citizens through a tax rebate to install renewable energy systems in their homes and businesses.

5. Funding needs to be available for information networks, conferences, public meetings and demonstrations of ren. energy technology in order to dispurse facts to the public in a personal contact way, so that they have a good working knowledge of the different alternative energy systems and are familiar with the vocabulary.

6. In marketing, distinguish the need from excess demand for energy and promote on a more scaled down, appropriate scale lifestyle. (As energy sources as we have known them become scarcer, is it more important to have heat in your home or a dishwasher?) Alternative energy marketing should be viewed as an industry value to the Alaskan economy and given the same developmental advantages that timber, fisheries and agriculture enjoy.

SOLAR INFORMATION AND EDUCATION

The State of Alaska should, through educational programs in our school system, make educators and future payers of energy aware of alternative energy use patterns and energy conservation. They should try to enlist any means to acquire the know how to start alternative systems of energy and get us off our dependence on our fast depleting fossil fuel supplies. Development of Lesson Plans and Classroom Projects indicative of low energy use of Native lifestyles as well as culture, should be made available to public schools on conservation. In-service programs should be conducted to include parents or other community participants in relation with community energy-self-sufficiency.

Being done

The State must drastically expand its renewable energy education and information efforts. Demonstration projects throughout the State will aid in this effort:

a. Alternate energy libraries on an original basis, with books in Alaska Native languages. Good

b. Workshops for architects, planners, engineers, contractors on alternative energy and energy conservation.

c. Increase funding for the energy extension service. Good

d. Innovative techniques should be explored for communicating energy information such as comic strips.

Energy education should be a formal part of the public school curriculum. The program should include an analysis of conventional energy sources, renewable energy sources, and energy conservation potential specifically dealing with the Alaskan situation.

POLICY CAUCUS

URBAN

1. Public agencies concerned with housing, economic development, transportation, and neighborhood preservation should give priority to conservation and solar measures.

2. With some state and municipal government support, work programs should be expanded to include those for installing solar devices, retrofitting existing structures, conducting energy audits, and implementing conservation and weatherization programs.

3. State and local governments should expand or establish economic incentives for public transportation systems serving urban areas of Alaska which use renewable energy sources where possible (gasahol, methanol and ethanol plants should be created).

4. All state and local government vehicles should be required to use gasahol or natural gas.
none Avail

5. In land use planning decisions, energy conservation should be an important principle. This includes not only building design, but community planning with respect to mixed zoning, the location of commercial areas and schools.

POLICY CAUCUS

RURAL DEVELOPMENT

The development of renewable energy, energy conservation and appropriate technology will demonstrate viable alternatives in rural life and promote regional self-reliance. The result will be the stabilization of rural populations and the enhancement of the quality of rural life.

1. The state government should immediately implement a comprehensive program of education, technical and financial assistance for the development of renewable energy programs in rural areas.

Information and assistance should be made available through the cooperative extension services, schools, and village and regional organizations.

It should be the policy of the state to provide funds for local energy education and demonstration projects which direct people toward self-sufficiency. Rural cooperatives, self-help organizations and villages will benefit from this funding.

2. Federal and state governments should provide incentives to make rural areas energy producers and, therefore, self-reliant, and to safeguard environmental quality. Programs shall include the following:

a) A local energy source.
b) Agricultural fuels.
c) Conservation practices which reduce the need for petroleum based fertilizers.

3. The state government should make available low-interest, long-term loans and technical assistance for low-income families, which would enable them to become more self-reliant through such programs as weatherization, alternative and/or local energy production, and education.

State and local governments should expand or establish policies which stimulate:

a) Small industries that are job-intensive.

b) Mechanisms (community development corps., cooperatives) which restore economic control and self-sufficiency.

c) Input by citizens into public energy planning and decision-making.

d) The expansion of self-help, rehabilitative and rural rental housing.

e) Specific tax credits for small businesses and homeowners in the rural areas, which utilize energy saving techniques.

f) The comprehensive employment and training of economically disadvantaged rural people oriented toward work experience, classroom training and on-the-job training.

4. The REA should commit a reasonable percentage of available federal capital to Rural Electric Coops for the construction of generation capacity for renewable energy. The REA will provide low-interest loans to rural electric coop members, under the Sec. 5 program, to carry out energy conservation and renewable energy projects.

Rural areas shall develop decentralized power generating facilities using renewable energy resources in order to lessen environmental impacts, preserve Native lifestyle, create more jobs for local workers and protect local economies from severe fluctuations.

Transportation:

The state and local governments shall expand, establish or offer economic incentives to public and private transporation systems serving the rural areas by providing hidden subsidies to fuel dealers and transportation carriers.

A. Those bodies shall make renewable energy sources available so as to minimize the impact of fuel shortages.

B. Make low-cost loans available to communities to build sufficient bulk storages so that fuel supplies will be available at a reasonable rate to villagers, without the cash-flow problems (they're having today).

C. The Department of Transportation and Public Facilities should work with regional agencies and communities in the actual planning and routing systems.

Rural Alaskans should be made aware of the environmental, socio-economic and socio-cultural impacts of developing these sources and how to live with them.

5. Compile a village-by-village catalog of local energy resources.

Energy Conservation:

As the State of Alaska is a major user of energy it should adopt a program requiring maximum efficiency in government buildings, vehicles and installations. Retrofits of existing structures should be performed as soon as feasible. Passive solar design, energy efficiency should be required in all new buildings. Alternative power should be employed where feasible.

Energy conservation codes should be mandatory for new buildings in all sections of Alaska. The conservation codes should represent the maximum feasible designs that are possible without raising the initial cost of the house by more than 10%.

Appliance efficiency standards should be implemented in Alaska. Efficiency standards for refrigerators, water heaters, stoves, and other heavy appliances should represent the average of the top 10% of energy efficient models on the market.

No gas stove or gas furnace, or gas hot water heater should be sold in Alaska with a pilot light.

The state should adopt a program that would:

a) Develop performance-based, climate adapted building codes for five separate climate regimes.

b) Develop energy-based neighborhood planning strategies for five climate regimes.

Waste heat recovery practices should be encouraged through taxed incentives and loan programs.

Solar and Food Production:

We recognize that a large percentage of the cost of living in Alaska is due to transportation costs of imported goods, and that the cost of transportation fuels can only raise.

The state should adopt a policy which will encourage domestic production of basic goods such as food, housing materials and clothing. Strong incentive should be given to farmers in the areas of alcohol production and food production for Alaskan needs.

State governments should provide incentives to make rural areas energy producers and, therefore, self-reliant, and to safeguard environmental quality. Programs shall include the following:

a) Local energy source, tree planting and native grass reseeding.
b) Agricultural fuels.
c) Soil conservation practices that will safeguard top soil, thus eliminating the need for energy intensive fertilizer.
d) Develop and test solar greenhouse strategies for five climate regimes.

ALASKA CITIZENS FOR ALTERNATIVE ENERGY

Note: This is a baseline document for purposes of generating discussion.

Alternate Energy Policy for Alaska

The State of Alaska should recognize that the decentralized nature of its population necessitates a different approach to the energy problem. The extreme high cost of transporting petroleum products to remote sites makes the concept of local energy resource utilization a very viable alternative. A level of knowledge and technology in alternate energy exists today, capable of saving or generating a large part of the energy used by Alaskans. Energy conservation, solar energy, wind, and small hydroelectric generation can be utilized today in most parts of Alaska. The demonstration of these technologies in their appropriate areas has been started on a small scale at a much faster pace and should be pursued by the state.

However, there is still basic climatologic research to be done in the state. This research will allow alternate energy technologies to be applied in areas that are now considered marginal because of the lack of a data base. In addition to climate research, a second area to be stressed is basic research into new technologies and strategies for utilizing locally available energy.

The third area of research that needs to be pursued is the economics of alternate energy in Alaska. For example, first approximations show that the payback period, especially for wind generators, is very impressive - more than twice as good as other parts of the U.S.

Research and development are not enough. A strong regionally-based energy outreach program must exist to aid the individual with specific answers about what to do and how to do it. The energy extension, a D.O.E. funded program run by the Division of Energy and Power Development, is a first step in this direction but the project needs much greater funding support.

Some series of mechanisms must also be developed to aid private individuals in financing projects that reduce dependency on oil. These may take the form of direct stipends, tax credits and loans.

In summary, the state needs to develop a strong six-prong attack on oil dependence. The first step is to fund a series of demonstration projects within existing technology and climate knowledge. The second step is to generate a much better knowledge of existing climate and local energy resources. The third is to support basic research into new technologies and strategies for utilizing locally available energy resources. The fourth is to look at local energy resources in terms of life cycle costs in comparison with petroleum-based costs. The fifth is to actively educate all segments of the public about energy and alternatives. The sixth step is to develop strong financial incentives for encouraging the public to adopt energy conservation/alternative energy strategies and to help in establishing A.E. businesses.

Capitalization of R+D

how do you insulate from politicians?

Deposit state $ in credit unions?

THE CITIZENS ENERGY PLAN

As prepared by the participants of the

1ST ALASKAN ALTERNATIVE ENERGY CONFERENCE

November 11, 1979

Anchorage Community College

We the people of Alaska recognize the foolhardiness of continuing to rely on petroleum for our energy needs. Even though Alaska is a primary oil-producing state, we cannot afford to risk shortages that will lead to severe hardship in rural Alaska, nor can we idly accept the cost increases that will result as the OPEC nations continue to raise the price of oil.

Alaska has a significant budget surplus generated by increased petroleum revenues. The logic of applying a major portion of this surplus, to reducing our petroleum dependence is very compelling. We, the residents of Alaska, rural and urban, mandate our elected representatives to allocate 1.5 billion dollars over the next three fiscal years to developing ecologically sound, locally-oriented energy sources.

URBAN ENERGY CAUCUS

The development of Public Transportation Systems should be encouraged and the system should be scaled to meet local needs. Renewable energy fuel sources (gasahol, methonal, etc.) should be encouraged if feasible.

Communities should prepare (or have prepared) a microclimate assessment of their locale to identify suitable and problem development areas from this assessment, the community should develop or revise existing building codes, zoning ordinances, subdivision guidelines, etc.

Federal, State and local agencies should prepare energy assessments of new developments such as public facilities, roads, subdivisions, industry, commercial areas, etc.

The state and/or local governments should dvelop and implement building codes specific to the major climatic regions of Alaska. This could be coupled with a building incentive program.

The state should support and fund several urban and rural demonstration projects in energy efficient development. Urban projects should focus on planned unit developments; rural projects would focus on promoting energy self-reliance.

The various publicly funded public facility projects and programs (i.e. water systems, schools, waste disposal systems, etc.) should be coordinated - based upon a comprehensive development and energy strategy for each community. This could include establishing 'energy conservation coordinators' in boroughs and cities.

In land use planning decisions, energy conservation should be an important principle. This includes consideration of local microclimate, cluster or higher density development, mixed use zoning, minimizing the need to travel, and encouraging the development of public transit (where feasible) as well as energy efficient building design.

Public agencies concerned with housing, economic development, transportation, and neighborhood preservation should give high priority to these principals as well.

SOLAR INFORMATION AND EDUCATION

Education

The State of Alaska through educational programs, (K through University level) putting special emphasis on renewable resources, should make educators and future payers of energy aware of power generation, energy use patterns and conservation.

Energy education should be a formal part of public school and university curriculum offering both classroom and field methods of learning.

We should involve, to the greatest extent, teachers, parents, students and interested community members, in developing these curricula.

Solar Information and Education (CONTD.)

In developing university teacher training curricula, energy education should be incorporated into the arts, sciences and vocational training. In-service implementation of the energy curriculum should be an integral part of curricula development at all levels.

Public Education & Information

The State needs to set conservation examples in their building.

The State must drastically expand its renewable energy education and information efforts, such as:

a. demonstration projects of appropriate technology

b. expanding both permanent and traveling library collections. This should include information in Native languages, and emphasis on non-book media.

c. workshops for architects, planners, engineers, contractors, union craftsmen, in renewable energy.

d. increased State funding for energy extension programs, such as University of Alaska Extension Service.

e. exploring innovative techniques for communicating energy information to the public.

f. more use of public media for education.

g. Sponsoring the attendance of other Sub-Arctic countries to the next Alternative Energy Conference.

RURAL ENERGY POLICY

The state and federal government should actively promote the conservation and efficient use and management of energy in rural Alaska.

The state and federal governments should take steps to assure optimum use of locally available resources.

A comprehensive educational, planning and technical assistance program should be implemented to assure informed decision-making capabilities at the local level.

Expediting the implementation of energy programs and projects will be a high priority of all affected state and federal departments and agencies.

Short-term

The state must dvelop efficient surface and a · transportation modes for rural Alaska that are consistent with energy conservation.

Rural Energy Policy (CONTD.)

The state shall investigate the feasibility of creating a Department of Energy within the state government.

The state shall provide financial resources to continue RurAL CAP's revolving loan program and provide technical assistance to recipient communities in order to formulate a plan for avoiding future emergencies.

Energy planning and technical assistance should be provided on regional basis throughout Alaska.

The State should provide greater outreach to rural communities outlining alternative waste management technologies (such as those promoted by Sim Van der Ryne) in response to PHS & EPA sponsored large secondary waste water treatment facilities.

UTILITY INVOLVEMENT

Utility regulators should hold public hearings beforegranting a certificate of convenience (including sewer/water).

Utilities should be required to compare future systems on basis of energy efficiency, including small decentralized systems, and conservation.

Utilities should offer energy conservation consultation services such as home audits, insulation contractors list, etc., free of charge to their customers.

Utilities should be permitted to finance energy conservation and renewable energy investments, either by expensing the investments or including them in the rate base.

State should develop better data on wind and solar.

The Alaska Public Utilities Commission, in evaluating a request for a rate increase by a utility in order to pay for new generating facilities, should, before ruling on the rate request, require the utility to evaluate the cost of generating an equal amount of energy through conservation or through the use of renewable energy sources.

The Alaska Public Utilities Commission should become sensitive to rate reform, and new rate concepts which enhance cost of service pricing.

MARKETING

Alternative energy and appropriate technology marketing should be viewed as an industry of value to the Alaskan Economy and given the developmental advantages that timber, fisheries and agriculture enjoy.

Marketing (CONTD.).

Businesses which supply and/or manufacture renewable energy systems and appropriate technology should be aggressively pursued to locate outlets in Alaska.

Tax credits on transportation costs of shipping alternative energy equipment to and within Alaska should be given.

State and local governments should have a major public relations campaign to educate Alaskans on renewable energy hardware, construction, feasibility, retrofits and financing, to promote acceptance by lenders and users alike.

Incentives should be offered to businesses and citizens through a tax rebate to install renewable energy systems and conservation measures in their home and businesses - a suggestion of a 20% of cost with a maximum at $500. Revise state tax credit from 10% of cost and maximum of $200 to a 50% tax crdit.

Funding needs to be available for information networks, conferences, public meetings and demonstrations of renewable energy technology in order to disperse facts to the public through personal contact. This would provide a good working knowledge of the different alternative energy systems and a familiarity with the vocabulary.

Utilities should be provided with an economic incentive to purchase from small renewable energy producers.

Loan processes should be funded and then designed specifically for alternative energy and appropriate technology projects.

The State should enter into negotiations with financial institutions and insurance firms to insure equitable premium ratings and insurability of private and commercial buildings incorporating sound appropriate technology/alternative energy design and construction.

SOLAR AND FOOD

We begin with the recognition that food is solar energy at its most basic. We see the tremendous dependency Alaskans have on fossil and imported goods for their food supply. A self-reliant Alaskan food system will both cut the use of fossil fuels and the dependency on imported food stuffs.

The creation of a self reliant Alaskan food system should be one of the highest priorities of the State, and the mandate of the Dept. of Agriculture. Such a self-reliant food system is characterized by the local production and distribution of food using renewable energy resources to the maximum. An Alaskan food system must take into consideration the differences between rural and urban, individual and commercial food production and distribution.

Solar and Food (CONTD.).

We feel the development of a self reliant Alaskan food system is the highest priority of state agencies concerned with food issues. As such, we request the Dept. of Agriculture and Cooperative Extension Service, as well as appropriate legislative committees, to specify in writing what their activities to date have been to encourage Alaskan grown food for Alaskans. In addition, we request these agencies and committees to specify what their future plans are towards this end.

We of the standing committee on food feel a self-reliant Alaskan food system would include such representative programs and concepts as:

Producer cooperatives

Research and demonstration on solar and waste-heated greenhouses for individuals and commercial use.

Incentives and aid to farmers to move away from fossil fuel-based farm production.

Increased availability of agricutlural land

Community canneries and freezers

Farmers markets and food co-ops.

Commercial food processing and storage facilities

Community and individual gardens

Identification of, and encouraging consumption of indigenous Alaskan food stuffs.

Promotion of Alaskan-grown food through education and publicity programs.

Low-interest or no-interest loans and subsidies for solar applications used in food production.

Information and assistance for individual gardeners

Tax incentive for all food producers, both individual and commercial.

Technical assistance and loan funds for food co-ops.

Support of the food bank effort.

Solar and Food (CONTD.).

We recommend to the first Alaskan Alternative Energy conference the creation of a statewide organization to promote the use of renewable energy resources in Alaska. The members of the policy caucus on solar energy and food wish to comprise the initial membership of that standing committee on food. The standing committee on food will work together to pursue the following recommendations. Interested people should contact Alexander Scala at Self Reliance Incorp., Box 7348, Fairbanks, Alaska 99707. 456-7674.

ENERGY CONSERVATION

Energy conservation is efficient management and use of appropriate energy resources, which are optimally matched to their end uses.

Alaska shall adopt a locally oriented approach towards developing energy conservation standards (buildings, transportation, total).

The state government shall provide funds, technical assistance, and guidelines to assist local governments in developing standards.

State should

a. adopt performance standards for 5 climatic regions with minimum guide lines for energy conservation.

b. tax incentives to optimize measures beyond the minimum.

c. require energy consumption information, prior to transfer of real estate in all sectors.

Municipal level legislation should require households served by the Municipal trash collection system to separate recyclable materials (aluminum cans, glass, newspapers).A local corporation could be set up to market the recyclables.

Let us develop a policy of moving information/intelligence electronically, where feasible, in lieu of moving material and people physically from place to place. Via satellite communications (to cite just one example) the entire State of Alaska could join in "town meetings."

FINANCE POLICY

The State should mandate full value appraisal (i.e. life cycle costing) for new housing and retrofit improvements, with modified appraised value processed under existing financing provisions.

There should be State guaranteed low interest loans or a State loan bank for housing retrofit, insulation, renewable energy, and conservation measures.

Finance Policy CONTD.)

State should forgive a portion of the current levy on gasoline for use with alternative liquid fuels, such as alcohol.

The State should develop incentives for business to invest in energy saving and renewable energy systems. These include but are not limited to:

1. **Tax incentives**
2. **Low interest loans**
3. **Expensing capital improvements**

RURAL FINANCE POLICY

Mechanisms need to be developed to change federal regulations related to bush housing which is now insensitive to bush community needs in the area of energy efficiency.

Low interest funding should be appropriated for improvement in local utility operation based on options related to implementation of conservation and renewable resource measures.

The State should provide low cost investment capital for alternative energy sources which can become competitive with present fuel and electric systems.

A fund should be developed for low cost investment for renewable energy sources in bush areas equal in dollar amount to current subsidies for conventional programs.

For each subsidy program, compare the life cycle costs of a broad range of energy conservation and renewable resource energy alternatives to conventional (i.e. subsidized) energy delivery systems.

RESEARCH AND DEVELOPMENT

The State of Alaska should develop a strong Research and Development program that would:

Increase state funding for basic and applied research in Alternate/Renewable Technologies.

Provide incentives for manufacturing and distribution of existing technology.

Form a task force to research R & D opportunities in the state and establish an outreach mechanism by which the AT developer gains access to that information.

Increase funding for Northern Technology-Appropriate Energy Technology small grants programs. In the future, grants should pay for LABOR as well as materials.

Research and Development (CONTD.)

Buy and install 200 anemometers across the state.

Buy and install 25 pyranometers across the state (pyranometers = solar radiation measuring devices).

Develop a system for monitoring the thermal performance of buildings.

Study winter flow data for the interior rivers.

Expand the geothermal drilling program.

Study energy/dollar savings of four prototype solar houses in 17 cities in Alaska via computer techniques.

Investigate production of gasahol from local grain.

Fund a non-profit organization to:

a. Conduct a worldwide survey of similar communities with similar problems (to aid and build alternate solutions, regardless of political boundaries).

b. Provide for education regarding Operations and Maintenance costs associated with now technology for old problems.

Protect the contents of specific research and development ideas until the developer is ready to publish the findings. The concept includes a copywrite on the idea, and two or three years of guaranteed privacy to allow adequate time for research and development.

Reduce capital gains commensurate with the amount that the individual (or business) invests in their energy efficient technology. In other words, if Jo Dokes invests $40,000 in ideas that save energy on her Matanuska Valley farm, that person (or business) is allowed to deduct a portion or the full amount of the capital invested from their gross annual income.

An information/data center, either within an existing agency structure or as a new agency, is needed that would:

a. Assimilate and distribute AT information to the public.

b. Provide referral services for AT information not readily available.

c. Give technical aid in grant writing and research.

d. Provide data gathering.

e. Provide economic analysis.

Research and Development (CONTD.)

The need was stressed to look to persons within the state for R & D data, BEFORE looking outside for that technology. The assumption here is that many Alaskans are virtual experts in many appropriate technology methods, but gain no recognition for their efforts and expertise. An example used alluded to a State Transportation official in one of the workshops that stated unequivocally that there are no people in the state that are qualified to speak on the problems and solutions facing Alaska.

ALASKANS FOR ALTERNATIVE ENERGY

The Caucus agreed to nominate and elect, during the conference wrap up session, candidates for the formation board who will within one month incorporate "Alaskan's for Alternative Energy". The formation board will develop by-laws, and within two months, send letters of response to conference attendees (and others interested) seeking funds, offering nominations for a permanent Board, and calling for the adoption of interim by-laws.

Added as specific near term goals were:

a. The inclusion of community based groups that deal with low-income people in the organization, and

b. The development of an information package to help people in their communities develop self-reliance and a list of resource people.

ALTERNATE ENERGY POLICY FOR ALASKA

The energy policy statement of Alaskans for Alternative Energy accepted at the 1st Alternative Energy Conference is as follows:

The State of Alaska should recognize that the decentralized nature of its population necessitates a different approach to the energy problem. The extreme high cost of transporting petroleum products to remote sites makes the concept of local energy resource utilization a very viable alternative. A level of knowledge and technology in alternate energy exists today, capable of saving or generating a large part of the energy used by Alaskans. Energy conservation, solar energy, wind, and small hydroelectric generation can be utilized today in most parts of Alaska. The demonstration of these echnologies in their appropriate areas has been started on a small scale at a much faster pace and should be pursued by the state.

However, there is basic climatologic research to be done in the state. This research will allow alternate energy technologies to be applied in areas that are now considered marginal because of the lack of a data base. In addition to climate research, a second area to be stressed is basic research into new technologies and strategies for utilizing locally available energy. In this process, compatability with the existing physical and cultural environment must be considered.

The third area of research that needs to be pursued is the economics of alternate energy in Alaska. For example, first approximations show that the payback period, especially for wind generators, is very impressive - more than twice as good as other parts of the U.S.

Research and development are not enough. A strong regionally based energy outreach program must exist to aid the individual with specific answers about what to do and how to do it. The Energy Extension Service, a D.O.E. funded program run by the Division of Energy and Power Development, is a first step in this direction, but the project needs much greater funding support. Indeed, the outreach education effort should extend beyond direct energy related activities. It must include emphasis on community self-reliance through such areas of activity as local food production, import substitution, small industry, land use factors, transportation and social collaboration.

Some series of mechanisms must also be developed to aid private individuals in financing projects that reduce dependency on oil. These may take the form of direct stipends, tax credits and loans. Legislative mandates for energy conservation, retrofit, and BTU budgets on performance building codes, can quickly alter structural energy requirements and aid the marketing/business aspects of alternative energy development.

In summary, the state needs to develop a strong six-prong attack on oil dependence.

1. to fund a series of demonstration projects within existing technology and climate knowledge.

2. To generate a much better knowledge of existing climate and local energy resources.

3. To support basic research into new technologies and strategies for utilizing locally available energy resources.

4. To look at local energy resources in terms of life cycle costs in comparison with petroleum-based costs.

5. To actively educate all segments of the public about energy and alternatives.

6. To develop strong financial incentives for encouraging the public to adopt energy conservation/alternative energy strategies and to help in establishing alternative energy businesses.

Alternate Energy Policy for Alaska (CONTD.)

To this end we urge the State of Alaska to adopt a goal of supplying 25% of the State of Alaska's energy needs through renewable energy by the year 2,000. Harvard Business School has recently found this goal to be easily attainable on a national level. Alaska, with greater renewable potential than most of the nation and fewer barriers, will have little difficulty in attaining such a goal.

Alaska Center for the Environment
1069 W. 6th Avenue
Anchorage, Alaska 99501
(907) 274-3621

Dear Legislator:

As you are already well aware, energy is an issue of primary concern to Alaskans. It is an issue for which you will have many requests for action during the present session. In weighing those requests it is vital that you consider the input of the participants of the 1st Alaska Alternative Energy Conference, sponsored by the Alaska Center for the Environment (ACE) last fall. Enclosed with this letter is a conference brochure and The Citizen's Energy Plan produced by the conference.

The Citizen's Energy Plan was formulated in 10 caucuses at the Alternative Energy Conference, and is unique for several reasons:

1. It represents the voice of over 725 Alaskans attending at their own expense in a balanced geographical/population spread for the state. Several hundred others were turned away for lack of space.
2. This was a truly grass roots gathering of <u>your constituents</u>, the majority of whom had not previously had a voice in developing policy, but who welcomed the opportunity to communicate with their legislative representatives.

Alternative Energy was an issue of significant enough interest to bring This large a body of people together. It was the first opportunity for Alaskans to learn about the renewable energy potential and applications

in their state. With this new information and a knowledge of their own needs, participants developed a mandate for a sustainable energy future. Energy and food self-sufficiency were key policy objectives. Some highlights of The Citizen's Energy Plan are:

Tax incentives, grant and loan programs to stimulate private investment in alternative energy (See Finances, Marketing, Energy conservation).

Vast increases in the state commitment to research, development and demonstration of renewable energy and local energy technologies (See Research & Development, Utility Involvement and Solar Energy Policy)

Vast increases in the information and education efforts of the state in the areas of conservation and renewable energy (See Solar Information and Education, Rural Energy Policy, Alaskan's for Alternative Energy).

Development of mass transit systems in urban centers and efficient transportation systems in rural areas (See Urban Energy Policy and Rural Energy policy).

Comprehensive community energy planning. (See Urban Energy, Rural Energy planning.

Portions of the conference were videotaped thanks to a grant from the Governor's Office. These are currently being edited. In the interim a special showing of original footage can be arranged upon request.

A.C.E. is currently compiling a catalogue of model solar/conservation projects in Alaska, which is partially funded by the Alaska Renewable Resources Corporation. It will include a listing of the interests, skills and experience of over 250 Alaskan's active in renewable energy development. You will be receiving copy of this catalogue upon it's completion in early spring.

Unitil then, please feel free to contact me. A.C.E. now has an extensive library on alternative energy systems and policy as well as extensive information on projects throughout the state. I will be happy to assist you at any time.

Sincerely,

Nancy Lee

Nancy Lee, Director
Alternative Energy Resource Center

February 7, 1980

Alaska Center for the Environment
1069 West 6th
Anchorage, Alaska
99501

1ST ALASKA ALTERNATIVE ENERGY CONFERENCE

1ST ALASKA ALTERNATIVE ENERGY CONFERENCE

WHAT WE ARE ALL ABOUT.....

Alaska's First Alternative Energy Conference will be held November 9, 10 and 11, on the University of Alaska at Anchorage, campus. It will provide information to Alaskans concerned with high energy costs about the potential of solar, wind, small hydro, biomas and geothermal energy. Alaskan experts and resource people from "Outside" will discuss the state of the art of alternative energy technologies, as practiced here and elsewhere. Participants will learn about demonstration projects developed in Alaska, and have an opportunity to discuss these projects with the people responsible for them. The tone of the Conference will be relaxed and informal for a maximum information exchange.

THE WIND BLOWS

There are many operating wind generators in Alaska, providing reliable service. Lake Illiamna is one center with over a dozen operating units, and more to be installed this year. Dan Denslow of Ambler has a Jacobs wind electric generator, that not only powers his house, but 2 others as well. With 33,000 miles of coastline, and various wind tunnels through our mountain ranges, wind power for electricity provides a real energy alternative to many areas where liquid fuels are most expensive.

THE WATER FLOWS

Remote mining, cannery operations have been powered by Pelton wheels throughout Alaska since the 1890's. Many of these small hydro systems still provide power to the bush communities. Gerald Iohson of Valdez received a Federal grant this year to expand his water power project to include the home of a neighbor, while in southeast, several homes and lodges are powered by hydro plants of up to 50 KW in size.

THE SUN SHINES

Many Alaskans still feel that solar energy is unfeasible this far north. This is hardly the case. Alaskans, like Bob Roggash of Fairbanks, are finding that passive solar energy can reduce annual heating bills by 75%, through proper design and construction for natural heat gain. Balch in Fairbanks has pioneered a method of raising ground temperature for gardening by running solar heated water through underground pipes. Berry Hollenbaek will use the same technique in combination with solar grain drying, and space heating, at his new Delta Junction farm. Even downtown Anchorage fire alarm boxes are powered by photo cells. Applications are numerous and widespread.

ENERGY FOR AN ALASKAN LIFESTYLE

During the next legislative session state leaders will be meeting to formulate a statewide energy policy for Alaska. Unfortunately, many decision-makers feel that renewable energy is still a technology of the future, despite the fact that problems like utility interface, financing, and community planning have limited solar development, not technological shortcomings. It is important for this conference to demonstrate that a grassroots constituency exists that understands the problems facing alternative energy technologies and wishes its state energy policy to clear the way for alternative energy development.

Therefore, policy workshops and speakers will be offered at the conference to clarify these issues. After hearing these options, conference participants will be asked to choose a policy issue, about which they are concerned, and attend that Policy Caucus. There a position will be defined by the workshop members. This resolution will then be presented to the general assembly for approval.

Alaska is the last frontier, the refuge for those who want to take control of their own lives. The idea of relying less and less on centralized power sources, and more on local, small scale energy systems is a concept that the conference will explore. Alaska can lead the nation in this direction. We have the potential, the need, and the independence to do it. Discussions and resolutions will be carried to decision makers to insure consideration of an active renewable energy policy in Alaska.

A SOLAR CATALOGUE FOR ALASKA

The Alaska Center For The Environment has recently produced an Alaskan segment of a national catalogue of model solar and conservation projects for the Center For Renewable Resources, in Washington, D.C. Solar is used here in a broad definition, that include wind, hydro, biomass, and other renewable energies. Through this project 1500 individuals and agencies in Alaska were surveyed as to their knowledge, experience and skills, relating to alternative energy projects. The twenty (20) most unique were chosen for the catalogue, along with some 175 individuals, resource people business and agencies, in the Directory listing.

Work continues on an expanded version for in-state use that will be as comprehensive as possible. Conference participants will be asked to contribute their expertise.

Registration fees for the Conference will include a copy of the catalogue for each participant, upon its publication, after the Conference.

1ST ALASKA ALTERNATIVE ENERGY CONFERENCE

REGISTRATION FEES

Regular $5.00 In Advance ..... $10.00 Day of Conference
Seniors and Students $5.00

WHERE: University of Alaska, Anchorage at the Cuddy Center

FRIDAY, NOVEMBER 9, 1979 — 4:00PM to 8:00PM
SATURDAY, NOVEMBER 10, 1979 — 8:00AM to 11:00PM
SUNDAY, NOVEMBER 11, 1979 — 10:30AM to 5:00PM

Registration Fee includes Admission to the Conference, a registration packet, and one copy of the Alaska Solar Catalogue, to be published following the Conference.

☐ Pre-Registration for Conference $5.00

REGISTRATION

NAME: _____

ADDRESS: _____
(Street) (City and State) (Zip)

TELEPHONE: _____

AREAS OF INTEREST IN ALTERNATIVE ENERGY: _____

_____

_____

☐ I would rather volunteer to work with the Conference Committee than pay a registration fee (Limited number only!)

☐ I have an exhibit to display (Please include a brief description and space requirements)

GENERAL SESSIONS — CUDDY CENTER, UNIVERSITY OF ALASKA, ANCHORAGE

FRIDAY, NOVEMBER 9TH — 7:30 pm

Welcome Introduction — Bill Spear, Alaska Renewable Resource Corp.

Keynote Speaker — Floyd Stea, Organization for Renewable Energy, Copenhagen, Denmark.
"Alternative Energy in Denmark & Scandinavia"
sponsored by the Alaska Renewable Resources Corp.

Rich Seifert, Water Resources Institute, Fairbanks.
"Renewable Resource Potential for Alaska"

David Morris, Institute for Local Self-Reliance, Washington D. C.
"Community Energy Systems"

SATURDAY, NOVEMBER 10TH — 9:00 am

Jerry Plunket, Montana Energy Research and Development Institute, Butte, MT.

Sim Van der Ryne, Farallones Institute, Berkley and Occidental, CA.

Chris Conway, Energy Probe, Ottawa, Ontario, Canada

SUNDAY, NOVEMBER 10TH — 9:00 am

Rep. Bill Miles, Statewide Energy Policy

State Panel — Clarissa Quinlan, Division of Energy and Power Development

Phil Smith, Rural Alaska Community Action Program

Brian Rogers, Legislator

WORKSHOP SERIES I
Saturday, November 10th 10:30 — 12:30 pm

PASSIVE SOLAR DESIGN	BOB ROGSCH, Super insulated houses Fairbanks SKIP ROY, D.A.T.A. Davis, CA. ED McGRATH, insulated shutters, Fairbanks
GREENHOUSES	BIRNEY BIRNBAUM, National Center for Appropriate Technology, Field Representative JOHN COLLETT, Fairbanks Solar Greenhouse
FINANCING	BILL SPEAR, ARRC ABE LOVE, Homer Federal Savings BOB SULLIVAN, Alaska Mutual Savings
WIND ENERGY BASICS	BOB SHIPLEY, Division of Energy JIM WISE, Arctic Environmental Data and Information Center TUNIS WENTINK, University Of Alaska (Fairbanks)
FUNDING	CHRIS NOAH, Office of Science and Technology FRANK BROWN, D.O.E. Small Grants Program ANNE HEGNAUER, U.S.D.O.E., Washington D.C BOB SHIPLEY, Western Sun NEWTON CHASE, H.U.D.
METHANE	CHUCK VOWELL, Unalaska ELLIOT LIPSON, Dept. of Environmental Conservation
GEOTHERMAL	DON MARKLE, Division of Energy
RENEWABLE ENERGY EDUCATION K-6	ANNE WIELAND, Science Coordinator, Anchorage Public Schools

WORKSHOP SERIES II
Saturday, November 10th, 1:30 — 3:30 pm

WIND ENERGY APPLICATIONS	MARK NEWELL, Wind Program, Alaska Native Health Service DAN DENSLOW, Ambler SARA & CHUCK HORNBERGER, Lake Clark
SMALL HYDRO	LORAN BAXTON, U.S. Army Corp of Engineers
RECYCLING	BOB MORRISON, AK. Center for the Environment VIRGINIA dal PIAZ, Bottle Bill
ALCOHOL	(To be announced), Solar Energy Research Institute
SOLAR WATER HEATING	BIRNY BIRNBAUM, National Center for Appropriate Technology, Field Representative
MAKING YOUR HOME MORE ENERGY EFFICIENT	ED McGRATH, Energy Extension Service, Fairbanks LESLIE TOUSSANT, Designer, Fairbanks JEFF WILSON, AIA
DESIGNING SOLAR NEIGHBORHOODS	SKIP ROY, D.A.T.A., Davis, CA.

WORKSHOP SERIES III
Saturday, November 10th 4:00 — 6:00 pm

PASSIVE SOLAR	SKIP ROY, D.A.T.A, Davis, CA.
AGRICULTURE AND SOLAR	BARNEY HOLLEMBAEK, Farmer SAM SKAGGS, Small Scale Agriculture
STATE AND LOCAL PROGRAMS	STEVE BADEN, Division of Energy LEE LEONARD, Dept. of Transp. & Public Facilities MARY STACKELROOT, Bethel House DEE LANE, RuRAL CAP
UTILITY INVOLVEMENT WITH SOLAR	CHUGACH ELECTRIC DAVID MORRIS, Institute for Local Self-Reliance KETCHIKAN UTILITY
DISTRIBUTED ENERGY SYSTEMS	BOB CHILDERS
WOOD HEAT	KEN KILBORN, U.S. Forest Service OLI WIK, Ambler JACK SPRATT, Anchorage
COMMUNITY SELF-RELIANCE	MORRIS MORGAN, Tanana Chiefs Conference WENDY WARNICK, Sun Till
RENEWABLE ENERGY EDUCATION SECONDARY LEVEL	STEVE HENNESSY, Wasilla High School DAN BRISCOE, SAVE I High School
HOEDOWN	8:30 pm — 1:00 am — Cuddy Center with live bluegrass music

WORKSHOP SERIES IV
Sunday, November 11th, 10:30 am - 12:30 pm

COMMUNITY ENERGY SYSTEMS	DAVID MORRIS, Institute for Local Self-Reliance MARK NEWELL, Wind Program, Alaska Native Health Service
SELF-SUFFICIENT HOMESTEAD	DAN DENSLOW, Ambler SARA & CHUCK HORNBERGER, Lake Clark
TRANSPORTATION	LEE LEONARD, Dept. of Trans. & Public Facilities HERB CUTLIP, Alternate Energy Systems, Inc. natural gas auto JOHN RICHARDS, electric car, Anchorage
HYDRO	Same as Above
FINANCING	Same as Above
GEOTHERMAL	DON MARKLE, Division of Energy and Power Development
FUNDING	Same as above

WORKSHOP SERIES V
Sunday, November 11th 1:30 — 3:00 pm

POLICY CAUCUS	•Marketing •Utility •Involvement •Financing •Solar Information and Education •Rural Energy •Urban Energy •Energy Conservation •Solar and Food Production

FINAL GENERAL SESSION 3:15 — 5:00 pm

Adoption of resolutions from policy caucus

HOUSING: Housing has been arranged as follows:

☐ GOLDEN LION — Closest hotel to the Conference (1 mile). Attractive, comfortable, the Golden Lion offers a restaurant, coffee shop, lounge and gift shop at $44.10 per person for single or double occupancy.

☐ ALASKA PACIFIC UNIVERSITY DORMS — $16.00 for Single (includes linen)
$20.00 for Double
Meals can be purchased in nearby Providence Hospital adjacent to UAA

☐ I WOULD LIKE SLEEPING BAG SPACE.

☐ I LIVE IN ANCHORAGE AND WILL PROVIDE SLEEPING BAG SPACE FOR OTHERS.

☐ I WOULD