

ALASKA LEGISLATURE SPECIAL COMMITTEE / SUBJECT FILES 86/2

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entitled "Oil and Gas Leasing Policy: Alternatives for Alaska in 1977" prepared by Mason Gaffney as an economic policy analysis. It was partly in response to criticisms of the bonus system that the Legislature amended the state's leasing law.

Fixed Bonus with Royalty Bid

Under provisions of the new leasing law, the Commissioner now has available royalty bidding with a fixed cash bonus. The royalty, as a bid variable, is a percent of the production removed or sold from a property and may either be taken "in-kind" or "in-value." The royalty bidding provision in HB 854 may only be applied to sales where acreage is subject to drainage from offsetting wells. (See AS 38.05.180 (f)(3).)

Of the four sources of risk involved in leasing, royalty bidding shifts only the risk attendant with the future price of the resource to the lessor. Royalty bidding does not shift any of the risk involved with discovery, exploration costs or production costs from the lessee.

The primary advantage of Royalty bidding is that it transfers a portion of the firm's risk to the lessor. If the tract is economically "dry" then both the petroleum firm and the lessor share the loss. An increase in risk sharing would help enable

small firms to enter the field and increase competition, help increase government revenues and help insure an optimal allocation of resources.

However, royalty bidding can cause some additional problems due to excessive speculation. If the fixed bonus is set too low firms have little to lose by bidding high royalties and the higher the royalty the greater the problem of early shutdown and unrecovered resources. Theoretically, the lower the fixed bonus the higher will be the winning royalty bid.

In addition some of the advantages of royalty bidding are:

- (1) Payment for the lease tract is deferred. This allows entry by smaller firms and conserves capital for actual drilling and equipping the lease tract. This should increase competition in bidding.
- (2) Rent collected by the lessor is contingent on the finding of petroleum and is in proportion to volume. This is more consistent with a sovereign's responsibility of assuring a "fair market" value.
- (3) Royalty bidding reduces the premium now placed on prior knowledge of resource potential, thus reducing the advantage of large firms who can afford extensive pre-leasing surveys.
- (4) Royalty bidding allows a steady flow of income to the state over the productive life of the field.

(5) Income gain to the state results in part from a reduction in that portion allocated to the federal government via income tax.

Some of the disadvantages of royalty bidding are:

(1) the commitment made by the lessee is considerably less than with the cash bonus. A lessee may tie up land at little cost, deferring the risk of exploration and development of a tract to a neighbor. This may also encourage entrance by firms unable to commit adequate resources to assure proper development.

(2) Royalty bidding decreases incentives on marginal production.

(3) High royalties on low-value deposits are uncollectable as a lessee will not develop the tract, whereas low royalties on low-cost deposits are irretrievable.

(4) The lessee's incentive to defer production is exaggerated. It may be worthwhile to defer production on a field in anticipation of higher prices. In the meantime, the company may take advantage of unrealized capital gains, due to an increase in company worth based on the discovery.

(5) The price paid for the royalty requires careful policing.

(6) Royalty bidding may screen out small finds.

Many of the problems associated with royalty bidding are centered on a relatively high royalty bid. Some of these problems could be overcome by use of a sliding scale or step royalty. This would help alleviate some of the problems with discounts on marginal production. However, even a sliding scale royalty does not solve the entire problem, because it is hard to adjust the royalty scale to activities such as work overs, pressure maintenances and secondary recovery. The royalty provisions in HB 854 does not provide for a sliding scale, but the Commissioner may reduce the royalty if it will enhance ultimate recovery.

Fixed Bonus with Net Profit Bidding

This bidding method allows the risks associated with leasing to be shared between the lessor and the lessee. In contrast to cash bonus bidding, the lessor shares in the risks associated with exploration costs, resource potential, development costs and future market price.

This bidding option requires that the bid variable be a percent of the net profit from a tract. This option, in many ways, is a refinement of royalty bidding. It allows payment of rent to be deferred until production begins as a royalty bonus, but eliminates many of the problems associated with the royalty, namely early shutdown and discounts on marginal tracts.

Net profit bidding also goes much farther in terms of risk sharing than royalty bidding. Some advantages of the profit sharing approach are:

- (1) Net profit bidding binds the interest of the lessor and the lessee in much more common interest. They both share in a per cent of the net profits.
- (2) Income received by the state with respect to leases is now proportional to profit. This allows the share/barrel to be large when the field is flush and decreases as the field becomes marginal.

Some disadvantages include:

- (1) Formidable administrative problems in determining allowable deductions. These problems will resemble and approximate those involved in the corporate income tax. These may lead to considerable litigation.
- (2) There will be considerable padding of costs. The term used here is "gold plating." This has been a problem with the "East Wilmington" field off Long Beach, particularly with those costs related to environmental expenses.

The preceding discussion has centered around risk distribution and leasing alternatives. It has attempted to show how the lessor can share some of the risk and what some of the advantages and

disadvantages are. While the lessor, in this case, the State of Alaska, now has the opportunity to share some of the leasing risk via royalty bidding or net profit bidding, the state does not share in any of the pre-leasing risk. The risks consist primarily of collection and analyses of geological and geophysical information. This type of information is needed to make an estimate, albeit somewhat subjective, of the expected present value of the resource.

The Committee has asked an elemental question concerning leasing policy: What are the cost vs. benefits of obtaining pre-leasing data? In other words, what would be the advantages to contracting for exploratory drilling and of obtaining geophysical data prior to leasing? This approach would lead to the total separation of exploration and development. The firm eventually developing the tract would share some of the risks associated with the amount of the recoverable resources, but this would be substantially reduced. The firm would bear the risk of developing the tract, and the future price of oil. This proposal is developed further in Section V of the report "Summary of Legislation and Studies."

2. "to encourage the development of alternative energy resources for power generation and space heating"

This guideline was adopted by the Committee but amended to read:

2. "to encourage the development of economically viable renewable energy resources for in-state use"

This policy, as originally worded, could have easily been interpreted to be a subsidy policy related to alternate energy power projects. Alternative energy projects were not defined, but were intended to mean solar, wind, geothermal, and biomass conversion projects. With the amendments, the meaning and applicability of the policy guideline has changed. By inserting the words "economically viable," the policy may have changed. It is questionable whether economically viable energy projects need a subsidy. However, it may be argued that by encouraging energy projects via subsidy they become economically viable, and this guideline may still apply as a subsidy policy. Also in replacing alternative energy resources with renewable energy resources, the Committee may have inadvertently excluded geothermal energy.

The changes made by the Committee tend to make the policy apply more to large hydroelectric projects rather than "alternate energy" development. Generally large hydroelectric projects are more economically viable. In spite of this, the Committee retained the suggestion to allow cost depletion and expensing of intangible drilling expense for geothermal wells under this guideline. This is basically a tax subsidy and was included in the Energy Tax Act of 1978 recently passed by Congress as part of the National Energy Plan.

3. "to insure the orderly and timely development of non-renewable energy resources, taking into consideration resource marketability"

The Committee adopted the guideline, but amended it to read;

"to insure the orderly and timely development of energy resources, taking into consideration resource marketability"

This policy guideline deals primarily with leasing of energy minerals on state lands. Two apparent problems have arisen inconsistent with the stated policy. These are 1) state management of uranium, 2) the glut of Alaskan oil on the West Coast.

Currently the mining of uranium is carried out pursuant to Title 27 of the mining statutes. Title 27 lays out the procedure for staking a claim. A person who discovers, locates, and files a claim upon a uranium deposit acquires the irrevocable right to mine it, subject to various limitations or duties that may be imposed to continue such right.

Currently the Alaska Constitution limits the method of establishing the right to mine uranium and other fissionable material to discovery and appropriation under Title 27. However, the constitution does not preclude the leasing of land comprising a

fissionable or any other locatable mineral claim. The only constitutional requirement is that the discoverer have first right to such a lease. The problem is that there is no uranium leasing law.

The second problem deals with the timing of oil and gas leases.

Under current state management it is virtually impossible to time a lease consistent with the market demand. This is due primarily to the fact that the state has very limited knowledge about oil and gas resource potential prior to leasing. The Department of Natural Resources has considered implementing Miscellaneous Land Use Permit (MLUP) regulations which would allow the state to have access to non-interpreted seismic data shot on state land.

With proper staffing, the state could use the data to make resource estimates on potential lease tracts. The Department of Natural Resources has not yet implemented these regulations.

4. "to insure a fair market value for energy resources to the people of the state"

The Committee adopted this policy but amended it to read;

"to assure a fair return to the people of the state for conveyance of state owned energy resources"

This policy places responsibility on the state to assure that the citizens of the state are adequately compensated for transference of publicly owned energy resources. This is accomplished via leasing. The policy applies to oil and gas, uranium, coal and geothermal. The discussion provided here will deal only with oil and gas and coal.

This policy is closely related to policy 1 - "to distribute the risk of development between the State of Alaska and developers of energy resources". Both policies if developed to their furthest extent could lead to the separation of exploration from production for oil and gas development.

Under the present bidding system, the firm interested in bidding is faced with major uncertainties about three basic factors: 1) the actual level of resources that will be found in the tracts; 2) the cost of finding and producing those resources; 3) the price of which those resources can be sold. Exploration prior to leasing can be expected to reduce uncertainty about 1 and 2, but may have no effect on 3.

The level of uncertainty should affect the return to the public by affecting the amount that firms bid on available lease tracts. Three key areas which would be affected are: (1) improvement of a firm's expected present value of the resource; (2) reduction of any discount resulting from risk aversion; (3) increase in

competition. The latter two effects would clearly tend to move a firm's bid upward toward the estimates of the expected true value. However, the "net" change upward or downward would be determined by (1) namely the expected improvement in the bidder's evaluation of the resource.

In considering the net change in return, if current tract evaluations are generally overly optimistic, better information prior to leasing could lead to a net reduction in the average level of bids. This would occur if increases due to risk reduction and increased competition are more than offset by declines in the expected present value of the tracts. On the other hand, if current procedures do not lead to overly optimistic bids, the net change on return to the public would be upward. In either case, the reduction of uncertainty would be consistent with assuring a fair return.

The Committee made no recommendation pursuant to this policy concerning oil and gas. The recommendation concerning assuring a fair return is covered under policy 1. This recommendation was to evaluate cost vs. benefits of contracting for exploratory drilling and obtaining necessary seismic and geological information.

The policy guideline also applies to coal which is leased by the state. Currently AS 38.05.185 states that royalties paid on coal may not be less than 5 cents/ton. Using a cents per ton method

makes the royalty payment more like a severance tax than a royalty. Normally royalties are figured as a percent of production removed or sold from a property. The state usually receives either one-eighth or one-sixth of the production from oil and gas leases. For geothermal leases royalties amount to one-tenth of the production.

Normally coal is sold on a dollar/BTU basis. This unit price is equivalent to approximately \$15 - \$17/ton. Recent prospecting permits issued by the State have set the coal royalty at 35 cents/ton. Royalties on coal leases which date back to 1959 vary from 5 cents/ton to 15 cents/ton.

The Committee acknowledged that the royalty for coal is low but made some additional observations. Most of the coal mined in-state is burned as utility fuel. By increasing the coal royalty the cost will be directly passed on to the consumer via the Public Utilities Commission. This increase must also be viewed in light of the recently enacted Surface Mining and Reclamation Act of 1977. This act provides a 35 cents/ton charge for reclamation, and a 25 cents/ton charge which goes into an accident fund. The net affect of these charges will be an increase in utility rates.

The Committee chose to evaluate other state's coal royalties before making any specific recommendation.

5. "to maximize recovery of energy resources when this is consistent with maximization of net benefits"

This policy was not adopted by the Committee. The implications of this policy relate to the Oil and Gas Conservation Statutes, Title 31. This chapter governs the regulation of oil and gas production. The Alaska statutes are modeled after the Interstate Oil Compact Commission (IOCC) model legislation.

As the need for state regulation became apparent, states employed different means to regulate production of oil and gas. Most of the regulation methods were designed to prevent physical waste. One of the earliest and most widely accepted methods of regulation has been to control the spacing of wells. Every state which has conservation statutes authorizes the control of well spacing.

A second method of regulation has been to control directly the quantity of oil and gas produced. This type of regulation has taken two distinct forms: (1) Market demand prorationing; (2) Maximum Efficient Rate. Other types of regulation include voluntary or compulsory unitization and requiring use of secondary recovery techniques.

Market demand prorationing was used by Oklahoma and Texas in early years of the industry to restrict production to meet demand. This type of regulation was designed to increase the price of oil during times of excessive production. The intent of market demand

prorationing was not so much geared to conservation, but rather avoidance of economic waste. Maximum Efficient Rate (MER), on the other hand, dealt primarily with conservation. The MER for a reservoir is the rate of production which will maximize total recovery. The MER for a field is determined primarily by reservoir engineering factors. For example, a rate of production which needlessly dissipates reservoir pressure and affects ultimate recovery would be in excess of MER and would not be allowed.

Although the MER for a reservoir is determined typically by engineering considerations, the MER is partly an economic concept. The MER is officially defined as:

"the approved maximum sustainable daily oil and gas withdrawal rate from a reservoir which will permit economic development and depletion of the reservoir without detriment to ultimate recovery." (quoted in a statement by Jack W. Carlson, Assistant Secretary, Energy and Minerals, Dept. of Interior, 1975).

The State of Alaska regulates production on the basis of MER. The question of whether to regulate based on DCF or MER gets down to a basic conflict between the State of Alaska and oil producers. When a company sits down to determine its optimal MER, a number of economic factors are considered. A company will have to determine how a production rate might affect

recovery of oil vs. gas. The company will have to assign expected future values to each and adjust the MER to maximize present value. The MER will also be dependent on capital investments required to produce the field. Once investment decisions on use of capital enter the picture the companies will calculate their MER using time discount factors. It is often in determining appropriate time discount factors to maximize present value where the conflict between the state and the producers sometime arises.

6. "to protect the environment"

This policy was adopted by the Committee but amended to read:

"to protect the environment when this is consistent with other provisions of the State Energy Policy"

With the amendment, the Committee has changed the application of the proposed guideline. This ties protecting the environment into two other policies: (1) "to maximize net benefits, these benefits include but are not limited to price, employment, local training, local hire and ownership, tax base and includes other economic, social and environmental ramifications;" (2) "to encourage the availability of energy to all people of the state at the lowest possible rates consistent with good management techniques."

In terms of "maximizing net benefits" environmental ramifications might be considered a cost to some communities and would have to be weighed against the benefits associated with certain types of development, most notably petrochemical development. How this would be accomplished is uncertain. For some environmental costs such as damage to a fishery, it may be possible to assign some cost, but for other effects of environmental degradation values are not so easily assignable. How does one assign a value to air quality? Is the measure here hospital costs for lung disease? The measure of these benefits vs. costs would be difficult, if not impossible.

Protecting the environment when related to encouraging the availability of energy to all people of the state puts protection of the environment in a subordinate position. Protecting the environment in this case must be consistent with encouraging the availability of energy to all people of the state. Conversely, one would conclude if it were not consistent with encouraging the availability of energy to people of the state one could ignore the guideline. As with the relation to royalties the real key here should be maximization of net benefits.

Two recommendations arose from this guideline. The first was to oversee the regulations being promulgated by the Federal Government pursuant to the Surface Mining Reclamation Act of 1977. This is currently being done by DMEM within the Department of Natural Resources. The second suggestion was to require Social Economic

Environmental Assessment for energy related projects. These will be discussed in more depth in the next section of the report.

7. "to promote competition"

This policy was not adopted by the Committee. Even so, it is a policy of the state in regard to oil and gas. AS 38.05.180 (a)(1) states, "the people of Alaska have an interest in the development of the state's oil and gas resource to", (b) "maximize competition among parties seeking to explore and develop the resources."

Oil and gas leasing is a high risk venture and the current leasing system appears to reduce competition in two ways. First, the high level of uncertainty about the amounts of oil and gas present make it difficult for a small firm to obtain the necessary capital to bid on lease tracts. Second, the capital requirements are so high that even large firms must participate in joint bidding ventures. This may lead to pre-emptive bidding by larger firms.

The first problem, i.e. uncertainty, can affect bids in the following way. Risk averse firms, as mentioned earlier, will discount bids because of uncertainty. If there is competition the firms that discount below the true value will probably lose the tract. However, if a tract receives only one or two bids, the likelihood of selling the acreage below its true value is increased.

The second problem is joint bidding. The only evidence concerning the competitive impact of joint ventures concerns joint bidding and gas leases in Alaska and the Gulf of Mexico. Professor Mead, an economist at the University of California, Santa Barbara, examined data from Alaska sales between 1959 and 1966 in order to identify the impact of joint bidding on bidding participants against each other or against former participants. Mead's results indicate that in a two-year period following a break up of a joint bidding agreement, the bidding patterns indicate a clear tendency of restrained bidding among former partners. Over a longer period of time the results indicate that cooperation between former partners tends to dissipate. The study yielded similar results in the Gulf of Mexico.

Concerning the possible decline in competition for bids, the Federal government made three suggestions. These were (1) banning joint bidding by producers; (2) speeding up publication of basic geological and geophysical information in order to facilitate participation by smaller oil and gas companies; and (3) improving the bid rejection system. All three of these suggestions have been incorporated to varying degrees by the Federal government on OCS acreage. The State of Alaska has asked for an exemption from (1) for the Beaufort Lease Sale. The State of Alaska plans to lease the Beaufort jointly with the Federal government in December 1979.

The policies stated here are policies of the Royalty Oil and Gas Advisory Board's which were adopted by the State Energy Policy Committee.

1. "to maximize net benefits; these benefits include but are not limited to price, employment, local training, local hire and ownership, tax base and include other economic, social and environmental ramifications"

This policy is intended as a backdrop or measure of the desirability of competing proposals for disposition of state royalties. Royalties may be taken "in-kind" or "in-value" at the discretion of the Commissioner. The cost of choosing a specific proposal is the cost of sacrificing other alternatives. In simplest terms, this guideline requires the optimal allocation of labor, capital, natural and other resources.

While the idea of maximization of net benefits is easy to grasp in concept, it is difficult in evaluation. Basically if a change in any resource combination requires a sacrifice that is smaller than the incremental increase in benefits, then the change is seen as desirable. How you measure this incremental change is the difficulty. The difficulty is exacerbated by changes in intangible costs and benefits such as environmental and aesthetic affects.

However, if this evaluation is effectuated, some note should be taken of present vs. future benefits. The state should calculate

present vs. future benefits based on its discount rate or time value preference of money. This would result in maximization of present value. Some of the effects of this are included under policy (4) of Title 1, a policy which was not adopted by the Committee.

2. "to allow flexibility in the taking of royalties either "in-kind" or "in-value" so that the net benefits and the long term revenues from the refining, processing and/or sale of the resource are at least equal to the in-value revenues and benefits."

This was the policy recommended to the Committee by the chairman. The Committee, however, voted to amend the policy back to the original guideline as proposed by the Royalty Oil and Gas Advisory Board:

"the baseline price for any royalty sale shall not be less than the price that would be received for that royalty if taken "in-value"

The recommendation would have allowed an initial subsidy of feedstock to encourage industrial development. This subsidy would have to be made up in subsequent years by the purchaser so that the net effect in revenue could not be less than what would have been received by the "in-value" price. The Committee rejected the proposed guideline because it could not be shown that repayment

of the subsidy could be guaranteed.

The original Royalty Board's guideline required that no royalties be sold at less than the "in-value" price. Calculation of the "in-value" price requires two steps. Step (1) calculates each producers weighted average value per barrel at Point of Delivery for all oil sold by each producer during the month; Step (2) the weighted average of each producer's value is compared to the average weighted price received by all other producers. The higher of these two is chosen. These higher values are then weighted and the average is the price to the buyer.

The Committee chose to keep the "in-value" price calculation as the floor.

3. "to give preference first, to existing in-state facilities, second, to those expanding in-state facilities and third, to those who will construct new in-state facilities"

This policy is self explanatory. The guideline establishes priorities for the sale of royalties in-state. The guideline simply states that facilities already providing services and products from the use of certain natural resources be allowed first crack at buying royalties. The most obvious application would be for the sale of royalties to in-state utilities and refineries.

4. "to withhold a portion of any royalties from long-

term commitment to supply anticipated demands"

This policy related to Federal jurisdiction over the sale of crude oil and natural gas. The appropriate Federal laws are the Mandatory Petroleum Allocation Act (oil) and the new Natural Gas Act of 1978.

OIL

In terms of royalty oil the question of access revolves around interpretation of the Mandatory Petroleum Allocation Regulations. The crux of the allocation program is 10. CFR 211.63 entitled "Domestic Crude Oil Supplier/Purchaser Relationships." This essentially requires that the distribution scheme of crude oil which was in effect as of Jan. 1, 1976, remain intact. The rationale is to insure that small refiners retain access to the necessary feedstocks of crude oil. This Act was influenced by the Arab Oil Embargo. The regulations further require that once the "first sale," (See 10. CFR 212.72), of domestic crude oil is made from a property where domestic crude oil was not produced and sold prior to Jan. 1, 1976 a supplier/purchaser is established as though it had been in effect on Jan. 1, 1976. To terminate a "supplier/purchaser" agreement requires written consent of a purchaser and all subsequent purchasers, and is fairly difficult to effectuate.

The State of Alaska's first encounter with the Mandatory Petroleum Allocation Program concerned disposition of Prudhoe Bay

Royalty oil. There was a fear on the state's part that if they initially took their royalty share "in-value", could they then choose to take their royalty share "in-kind" at some future date? The basic question was, did the taking of royalty oil "in-value" constitute a "first sale" and was the state subsequently locked into a "supplier/purchaser" relationship?

The FEA responded to a request by the State of Alaska for an interpretation of 10. CFR 211.63 in terms of Prudhoe Bay Royalty oil. The FEA ruling was extremely favorable to the state in terms of Prudhoe Bay. The FEA noted that a major purpose of the Energy Policy and Conversation Act (EPCA) was to preserve a crude oil distribution scheme in effect on Dec. 1, 1973. To freeze Alaskan Royalty Oil would not serve that purpose. In fact the FEA ruled that use of royalty oil within the state would actually further the distribution purpose of EPCA. This was the basis for allowing the state to take its royalty "in-kind" after first taking it "in-value."

However, the FEA in the interpretation also ruled that the taking of crude oil "in-value" did constitute a "first sale" and created a "supplier/purchaser" relationship. This was in spite of an advance termination clause included in the lease. The advance termination clause in the lease allowed the state the option to take royalty "in-kind" after receiving it "in-value" with six months notice to the producers.

The purpose of this discussion is to illustrate that royalty oil once "sold" will be difficult if not impossible to retrieve.

Although the state fared well in terms of Prudhoe Bay and their "in-value" vs. "in-kind" taking problem this would not apply if the state sells royalties to a refinery. Once the oil is sold, it is committed under the terms of the Mandatory Petroleum Allocation Act.

GAS

The situation over Federal control of natural gas sales is unclear at this time, because of passage of the Natural Gas Act of 1978. Under provisions of the old Natural Gas Act of 1938 the Federal Energy Regulatory Commission (FERC) has "abandonment authority". This required that a producer, in this case the State of Alaska, could not retrieve gas dedicated into interstate commerce without FERC's approval.

Under the new Natural Gas Policy Act of 1978, FERC continues to have this type of jurisdiction over gas which was dedicated to interstate commerce as of the day before the enactment of the NGPA of 1978. However, under the new Act, FERC does not have "abandonment authority" over gas sold into interstate commerce after that date. FERC does retain some "non-price" jurisdiction over gas sales. The NGPA of 1978 allows FERC to set a minimum contract periods of up to 15 years for sales of new onshore natural gas.

It is unclear how the NGPA of 1978 will affect the future sales of royalty gas. Care should be exercised by the State to insure long-term access to adequate supplies. This is consistent with Policy 3 adopted by the Committee.

5. "with the exception of small sales, to public utilities, sales will be for specified volumes or proportions of production, constant throughout the year, rather than for flexible volume options to be called for by the purchaser"

This policy simply requires a purchaser to enter into a contract for a specific amount based on anticipated demand. It may cause some problems for a purchaser who may subsequently find feedstock at a lower price, but it eases the administrative burden.

6. "products derived from royalties refined or processed in-state and subsequently used in-state will be priced at the lowest possible price"

Although the state generally has no control over the price of products that a refiner sells, the Committee felt that one of the principle benefits of in-state usage would be lower product pricing for Alaskans.

7. "royalties or products from royalties exported from

the state must be surplus to anticipated in-state needs for those royalties or products"

This policy is in line with policy #4. It simply restates the need for in-state use of royalties or products. This type of policy is consistent with the provision in the ALPETCO Contract requiring processing of 30,000 bbl/day for in-state use.

8. "in general royalties will be disposed of in long-term contracts rather than in "piece lots" as may be done by a private sector, trader or dealer"

There are agents or brokers operating in the industry that specialize in selling odd lots of crude stock and refined products to buyers throughout the world. Out of necessity, they operate in a way to maximize volume with little emphasis on price. Often a producer will have to sell at a discount to get rid of these products through a broker. The guideline is simply a statement that this is not the way the state should conduct its business in terms of disposing royalties.

Title III Policy Guidelines Related to Energy Conservation

1. "to encourage and facilitate the implementation of energy conservation measures"

This policy was adopted by the Energy Policy Committee but amended to read:

"to encourage and facilitate the implementation of energy conservation measures, for all in-state energy use"

The policy as stated is self-explanatory. The Committee has recommended that the state begin actively pursuing programs which promote energy conservation. This policy represents a shift from current policy stated in AS 44.33.030 which directs the Section of Power Development to "promote and extend the use of electric power and energy in the state." The word conserve is included in this section but the context of "making an abundant supply of electric power available at the lowest possible rates."*

The State has two directions it can take in terms of encouraging energy conservation. These are primarily a policy of taxation which is basically a penalty policy for inefficient use, or a policy of subsidy. The subsidy policy is allowing tax credits for energy conservation measures or providing low interest loans.

*Note: Conservation in this section does not deal with the Petroleum Conservation Statute, AS 31.05. This Section is aimed at "use" and not development.

The National Energy Plan also includes penalty policies for excessive use. Title II - Transportation of the Energy Tax Act requires the imposition of a gas guzzler tax on automobiles. The bill provides that by 1980 a car which get 15 miles/gallon will not be taxed. However, if the mileage falls to 13 the tax is \$550. By 1985 a car must get at least 21 miles/gallon, not to be taxed. If the mileage falls below 13 miles/gallon in 1985, the tax is \$2,650. Tax schedules have been developed for 1980 - 1986.

The recommendations made by the State Energy Policy Committee reflect a policy subsidy. The recommendations were to analyze the fiscal impact of expanding AS 43.20.039 to more closely resemble the Federal Residential Credit. The Committee also recommended expanding the authority of the Alternate Power Resource Revolving Loan Fund to allow loans for energy conservation improvement. The fund exists but there is no money in it at present.

2. "to maximize, when possible, federal monies available for energy conservation measures, and renewable energy resource measures"

This policy was adopted by the Committee but amended to read:

The recently enacted National Energy Plan includes subsidy provisions for energy conservation and renewable energy development.

Title I - The Residential Energy Tax Credit of the Energy Tax Act of 1978, allows energy conservation credits for "qualified expenditures" of 15 per cent for the first \$2,000. The renewable energy source portion of the credit allows a 30 per cent credit for qualified expenditures which do not exceed \$2,000 plus a credit of 20 per cent for qualified expenditures which exceed \$2,000 but do not exceed \$10,000.

Maximum credit for energy conservation:

$$(.15 \times \$2,000) = \$ 300$$

Maximum credit for renewable energy sources:

$$(.30 \times \$2,000) = \$ 600$$

$$(.20 \times \$8,000) = \underline{\$1,600}$$

$$\$2,200$$

The State of Alaska has a similar law, AS 43.30.049, Residential Fuel Conservation Credit. This credit allows a 10 per cent credit for expenditures up to \$2,000. The credit applies to energy conservation improvements and to alternate sources of power generation. The maximum credit is \$200.

"to maximize, when possible, Federal monies and all other resources available for energy conservation measures, and renewable energy resource measures"

To date, the most conspicuous use of Federal grant money in Alaska has been for weatherization of houses in rural Alaska. There are numerous Federal grant programs in existence at this time. These include:

- * Community Service Administration; funding for this program is provided under Section 222 (a)(12) of the Community Services Act.
- * Special Crisis Intervention; funding for this program was provided by a special appropriation to aid low income families in meeting their utility bills as a result of the severe winter of 1976 -1977. Funds not expended under this program by September 30, 1977 were re-programmed by CSA for home weatherization.
- * DOE Low Income Home Weatherization Program; funding for this program is provided pursuant to section 440 of Public Law 94-385.
- * Farmers Home Administration Home Weatherization Program; funding for this program is through local utilities. Funds are provided for low interest loans which are repaid through customers utility bill. The program also provides grants to low-income households.

The program has not been implemented to date.

* Health Education and Welfare Home Weatherization Program; this program is made available through the Bureau of Indian Affairs. It has not been used in Alaska to date.

The two main programs in use are the DOE programs and the CSA program. Money from the Special Crisis Intervention Program is included in the CSA program. The DOE program is not designed to be operated independently. The DOE program does not allow expenditures to be made for "repairs" on a house. Many of the homes need repairs before they can be properly weatherized. The other limitation of the DOE program is that labor must be supplied by CETA. Many of the problems have arisen because of CETA. These involve misplacement of funds and the prohibition of a supplemental wage payment for Alaskan labor.

These problems surrounding use of DOE money have been surmounted by using CSA funds to supplement the DOE program. However, CSA funding ends in September 1979 and it remains to be seen if this funding will continue. The Committee has recommended supplementing the DOE program if the need arises.

Besides weatherization, the Federal Government has many other grant programs available. It has been indicated by the State Division of Energy and Power Development that "seed" money is

needed to utilize some of these funds. They are currently working on a proposal related to capturing some of these R & D grants. This will be submitted to the Committee.

3. "to provide the adoption and enforcement of standards to promote the efficient heating, cooling, lighting and ventilating in newly constructed buildings while maintaining local autonomy"

The Committee adopted this policy but amended it to read:

"to provide for the implementation of appropriate regional lighting and thermal efficiency standards in newly constructed residential and commercial buildings, and for retrofitting of existing buildings, while maintaining local autonomy"

This policy is directly related to two Federal Laws. These are P.L. 94-163 Energy Policy and Conservation Act (EPCA), and P.L. 94-385 Energy Conservation and Production Act (ECPA).

Part C of Title III of the Energy Policy and Conservation Act (EPCA) entitled, "State Energy Conservation Programs," authorizes the Federal Energy Administration, now the Department of Energy, to establish guidelines for the development and implementation of state energy conservation programs and to provide federal financial and technical assistance in support of such programs. To be el-

igible for federal grants, state plans must include:

- a) mandatory lighting efficiency standards for public buildings;
- b) programs to promote carpools and public transportation;
- c) mandatory energy efficiency standards and policies to govern local procurement;
- d) mandatory thermal efficiency standards and insulation requirments for new renovated buildings;
- e) traffic laws or regulations allowing motor vehicles to make right turns at red lights

Optional elements of the state plan include:

- a) restriction of hours of operation of public buildings;
- b) restrictions on use of decorative lighting;
- c) transportation controls;
- d) energy conservation public education programs

Based on reports submitted and other available information the DOE is to set energy conservation goals for each state by 1980.

Pursuant to EPCA and in regards to the policy guideline the State Division of Energy and Power Development organized the Lighting and Thermal Efficiency Standards Committee. The Committee ad-

opted the ASHRAE 90-75 standards. DEPD has submitted appropriate legislation to the Committee.

Title III of the Energy Conservation and Production Act requires HUD in conjunction with GSA to promulgate energy conservation standards for new buildings which states and local entities will be encouraged to adopt. These federally - developed standards will not be mandatory unless both Houses of Congress pass a resolution approving implementation of financial sanctions against non-complying jurisdictions. These sanctions would be a prohibition of direct or indirect federal assistance for construction of new buildings and a prohibition of federally insured regulated or supervised banking institutions from making loans for construction of new buildings.

The ASHRAE 90-75R standards have been implemented within the City of Anchorage. The cost increase for initial construction is approximately 5%. The initial cost is amortized after about 2 years.

4. "to encourage the structuring of electric utility rates to promote energy conservation rates which reflect the cost of providing service to each customer class"

The Committee adopted this guideline but amended it to read:

"to encourage the structuring of electric utility rates to promote energy conservation"

Traditionally, utilities have utilized declining block values in determining how to allocate costs to each customer class. This results in the smallest users paying the highest unit price. The common principle behind declining block rates is "value of service." This is a value under which consumers who place a higher value on goods or services are charged more than those who value it less. In general, the residential customer class values utility service more than, for example, an industrial plant which may be able to generate its own power if the cost of service becomes too high.

Most large utilities are regulated by state public utility commissions. Earnings of a regulated utility are held to a "fair and reasonable" rate of return on investment. Simply stated, revenue may not exceed costs... this is the so-called "revenue constraint" in utility rate making. By eliminating a profit incentive, the industry has devised means of expanding their rate base to compensate.

"Value of service" has tended to accomplish this. By charging residential customers a high per unit amount, the utility is able to cross subsidize some larger users. This encourages the larger users to buy more power and keep them from switching

to other sources. It also discourages efficient and conservative use.

The Committee adopted the guideline "to encourage the structuring of utility rates which promote energy conservation." This guideline is consistent with practices which tend away from declining block rates but in not such a direct and immediate manner as alternative proposals. This guideline could lead to "flat rates" where everybody is charged the same amount per unit of power. The guideline could also lead to peak-load pricing whereby rates for power are less during off-peak periods. The Committee made no suggestion as to how to implement the guideline, choosing instead to await the results of the standards implemented under Title I - Retail Regulatory Policies for Electric Utilities which is part of the recently enacted National Energy Plan.

5. "to encourage and require the optimal use of facilities and fuel resources for power generation"

The Committee adopted this guideline but amended it to read;

"to encourage the optimal use of exhaust heat"

This guideline was aimed at encouraging efficient fuel use by utilities and other large industrial power users. With fuel

costs increasing at such a rapid rate, economics are becoming such that it is more attractive to utilize waste heat. Utilities are switching to combined cycle units; institutional barriers are trying to be worked out so industry has the incentive for cogeneration. The Committee wholeheartedly approved this recommendation.

Title IV Policy Guidelines Related to Planning for
In-State Power Development

1. "to allow for coordination of state responsibility in planning for in-state power needs and the development of in-state power projects"

This policy was adopted by the Committee, but amended to read;

"to assure for coordination of state and federal responsibility in planning for in-state energy needs and the development of in-state energy projects, and to avoid duplicative and overlapping effort"

The three agencies responsible for state energy planning and regulation are the Alaska Power Authority (APA), the Division of Energy and Power Development (DEPD), and Alaska Public Utilities Commission (APUC). There is also one Federal agency, the Alaska

Power Administration (APA).

The guideline represents recognition of the fact that there should be a coordinated effort between these agencies. The legislature has passed legislation which should help coordinate activities between the APA and DEPD (see HB 442). The Power Authority is a public corporation within the Department of Commerce and Economic Development but with a separate legal existence. The authority can acquire money through the sale of revenue bonds, direct appropriation of state revenues, return of interest on its investment, and by borrowing. The purpose of the authority as stated in AS 44.56.070 is "to promote, develop and advance the general prosperity and economic welfare of the people of Alaska by providing a means of constructing, acquiring, financing and operating power production facilities..."

The Division of Energy and Power Development is basically a planning agency. Its responsibility, as stated under AS 44.33.040 (4), is to "prepare, after public hearings and reasonable consultation with government and other agencies, private companies and associations having a primary interest in it, a plan for orderly and timely development of the state's power resources..."

HB 442 included a provision which relates to the Long Term Power Plan. AS 44.56.224 requires that the Department of Commerce and Economic Development prepare a long-term electrical plan in conjunction with the Authority. The plan, and any revision of it,

must be submitted to the governor for his approval and shall be reviewed by all appropriate state agencies. The plan is then submitted to the legislature.

The Committee acknowledges, with adoption of the guideline, the need for a coordinated effort as is provided under AS 44.56.224. The Committee however, feels that this should be carried out with no duplication and overlap. The Alaska Power Administration (APA) is also involved in a similar effort and annually prepares a power plan. The Committee has also recommended with the guideline that their efforts be coordinated with the APA and DEPD.

One amendment related to the long-term plan that the Committee recommended was an evaluation of power production facilities, except nuclear which are economically feasible.

2. "to provide power to all people of the state at reasonable costs"

The Committee adopted this guideline but amended it to read;

"to encourage the availability of energy to all people of the state at the lowest possible rates consistent with good management practices"

This guideline adopted by the Committee was in recognition of

the problem of power availability and cost in rural Alaska. Power for much of rural Alaska is supplied by the Alaska Village Electric Co-Operative (AVEC). Cost to residential customers serviced by AVEC is as high as 37 cents/KWH. Besides the cost, many villages are simply without electricity. Both problems require considerably more work than can be given in this paper.

The recommendation made by the liaison committee to the Energy Policy Committee concerns the use of the Reserve for Energy Development Account. (See AS 37.05.158 plus the attached liaison committee report). The recommendation by the Committee deals with establishing guidelines for use of the account. The legislation presently directs the executive branch to isolate 5% of mineral lease income. The legislation does not provide for the specific use of the funds. The liaison committee has recommended use of the money for expansion of the obligations of the Alaska Power Authority. (See attached subcommittee report).

SECTION V SUMMARY OF LEGISLATION AND STUDIES

This section provides brief summaries and explanations of proposals recommended by the State Energy Policy Committee. The author retains the same format as used earlier.

Title I Policy Guidelines Related to Development and Management

1. "to distribute the risk of development between the State of Alaska and developers of energy resources"

The Committee's recommendation under this guideline was to study the costs and benefits of contracting for exploratory drilling to obtain necessary geological and geophysical data. The Committee expressed the desire that this analysis be done for different levels of pre-leasing work. The following discussion will attempt to formulate a framework for this study.

The effect of the state contracting for oil and gas drilling and seismic data gathering is to separate exploration activities from production. Exploration simply defined involves two major phases: (1) geophysical surveys; and (2) exploratory drilling. More broadly, exploration for oil and gas is the entire process of broad and specific surveys and collection of basic data for an area, followed by detailed geophysical delineation of geologic features and by drilling of holes into potentially productive traps. There is a high degree of economic risk involved in exploration. The Committee's proposal would shift a substantial amount of the risk to the State.

Under current state administration exploration is not separated from production. The first phase of exploration, geophysical surveying is carried on after a firm obtains a miscellaneous

land use permit issued by the Dept. of Natural Resources. These are relatively easy to obtain. Geophysical exploration is a method of mapping subbottom geological forms and features, structures and interfaces to locate potential traps. The principal method used is a seismic or acoustic survey.

Exploratory drilling, the second phase of an exploration program, cannot be carried out on state land until after a lease. This requires a large risk in that it cannot be effectuated until after the bidding process. Under cash bonus bidding the large amounts of capital are expended in obtaining the lease and large amounts of capital are expended on exploratory drilling. The Committee's proposal would obviate most of the risk.

The Committee's request was for a cost benefit analysis for contracting for exploration work of different levels. A similar request was made by Congress to the Office of Technology Assessment. Although similar, the major question addressed in that study was: Is it feasible to separate exploration from production on OCS lands? In OTA's evaluation monetary costs for exploration for different areas were figured, including Alaska, and this was related to effects on present leasing policy.

The major issues looked at in OTA's assessment were:

- (1) Public availability of resource information
- (2) Public control of resource development

- (3) Return to the public
- (4) Efficiency of exploration

The study evaluated each of these issues in terms of (1) limited exploration; (2) intermediate exploration; (3) full exploration. A limited exploration program was intended to find all traps with a potential of over 500 million BBL's. The intermediate program was intended to find and delineate both large traps (500 million barrels or greater), and intermediate size traps (over 50 million BBL's). The full exploration program would locate all the traps in a given area.

The study concluded that it was feasible to separate exploration from production, and that more complete information about the extent and location of reserves than is typically available under present leasing policy would:

- (1) Afford better estimates of total reserves essential to sound energy policy planning;
- (2) Ensure a fair return to the owner of the leased land.

It is the author's recommendation that a more complete analysis of this study and other literature on the subject be made prior to a final recommendation by the Committee. This would allow

the Committee to formulate a more definitive framework for the proposal with specific goals and objectives.

2. "to encourage the development of economically viable renewable energy resources for in-state use"

The proposal under this guideline was to allow expensing of intangible drilling expenses and cost depletion for geothermal wells. This was passed as a provision of the recently passed Energy Tax Act - 1978, as part of the National Energy Plan. The Committee recommended adopting this provision into the state income tax code. However, this proposal needs no committee recommendation or approval as it will be adopted automatically in the state tax code unless the Legislature dictates otherwise. Cost depletion and expensing of intangible drilling costs are tax subsidies.

3. "to insure the orderly and timely development of energy resources, taking into consideration resource marketability"

The suggestion here was to enact a uranium leasing law if this was constitutional. A letter from Committee counsel indicated there would be no constitutional problems if first priority was given on the lease to the person holding a claim.

4. "to insure a fair return to the people of the state for conveyance of state owned energy resources"

The Committee chose to evaluate other states' coal royalty provisions in comparison with the State of Alaska's. Consideration should include the amount of royalty as well as whether the cents/ton method should become a percentage of production. Most royalty payments are figured as a percent of production.

5. "to protect the environment when this is consistent with other provisions of the State Energy Policy"

The Committee recommendation pursuant to this policy was to require Social Economic Environmental Analysis (SEEA) documents to be prepared for all energy related projects which "significantly affect the human environment." A provision similar to this was included in the proposed oil and gas leasing regulations. This proposal will directly affect the Alaska Power Authority (APA), in future construction of their projects, particularly those funded with only state money. It will probably affect Community and Regional Affairs as well. The Committee's proposal would not include projects which have a similar document prepared pursuant to another local, state or federal law. Currently, projects funded by Federal money require Environmental Impact Statements under provisions of the National Environmental Policy Act.

The other recommendation was to oversee drafting of regulations

to implement the Surface Mining and Reclamation Act of 1977.

Some of the proposed regulations demand practices which are totally unsuitable for Alaskan terrain. Some of these are removal of overburden and topsoil which destroys permafrost and water quality standards regarding turbidity and PH. The standards exceed the naturally flowing waters used as mine input. Currently the Division of Minerals and Energy Management (DMEM) is working with the Federal Government on the regulations. Once the problems are overcome DMEM will administer the regulations and Division of Geologic Survey will be responsible for inspection.

TITLE II Policy Guidelines Related to the Disposition
of State Royalties

The Committee made no recommendation under this title.

TITLE III Policy Guidelines Related to Energy Conservation

1. "to encourage and facilitate the implementation of energy conservation measures, for all in-state energy uses"

TAX CREDITS

The first committee recommendation pursuant to this guideline was to consider the impact of replacing AS 43.30.039, Residential Fuel Conservation Credit with the Federal Residential Energy Tax Credit. The state credits allow a 10% credit for expenditures

which do not exceed \$2,000. The maximum credit is \$200.

The credit may apply for energy conservation improvements and alternate energy power development projects.

The Federal Credit is broken into two parts. The conservation credit allows a 15 per cent credit for expenditures up to \$2,000. The maximum renewable energy allows a 30% credit for "qualified expenditures" which do not exceed \$2,000 plus a credit of 20% for expenditures which exceed \$2,000 but do not exceed \$10,000. The total credit allowable is \$2,200.

In 1977 the Residential Fuel Conservation Credit was claimed on 10,837 returns by Alaskan taxpayers. The total amount of credit received was \$796,841. The average credit for each taxpayer who applied was \$73.83. This means that the average cost of improvements claimed was approximately \$750. 1977 is the only year for which data is available.

With only this data available the staff from the Dept. of Revenue did not think a good estimate could be made in terms of replacing AS 43.30.039 with the Federal Credit. It is unclear whether the state credit was allowed for energy conservation improvements or for alternative energy projects. Also, a single year's return does not provide adequate historical data.

LOAN FUND

The second recommendation was to expand the authority of AS 45.88.010

the Alternative Power Resource Revolving Loan Fund. The fund currently may only loan for alternate energy power projects. Energy conservation measures include insulation, furnace replacement burners, storm thermal windows, caulking, weather-stripping or double glazing of exterior doors, electrical ignition systems which replace gas pilot lights, and other improvements which the Commissioner of Commerce specifies increase the energy efficiency of a dwelling.

One problem has arisen concerning this fund. No money has been appropriated to it. Until an appropriation, the amendments and the balance of AS 45.88.010 are ineffective. The fund is authorized to provide loans up to \$10,000 at 8% interest.

2. "to maximize when possible, federal monies and other resources available for energy conservation improvements"

Under this guideline, the Committee recommended supplementing the DOE weatherization program with state money if needed. At present, it is not needed because funds from the Community Services Administration program are being used.

The Committee also endorsed a recommendation to allow the use of state funds as seed money for obtaining federal grants for research and development of alternative energy projects. The Division of

Energy and Power Development is currently working on a proposal for this recommendation. The proposal is to include the amount of seed money needed and to explain what Federal projects this applies.

3. "to provide the appropriate regional lighting and thermal efficiency standards and for retrofitting of existing buildings, while maintaining local autonomy"

The Committee adopted, under this guideline, a proposal to require energy performance standards for new residential and commercial buildings. These performance standards would be promulgated under regulations adopted by the Commissioner of Commerce. They would not specify actual methods of construction and types of material which would be required, but would include statements of requirements, criteria and evaluation methods. No state financial assistance would be approved with respect to any construction which did not meet the standards. These standards could be waived in areas of the state where it can be shown that the cost of implementation is too high.

4. "to encourage the structuring of energy utility rates which promote energy conservation"

The Committee made no recommendation under this guideline except to comply with appropriate provisions of the Public Utilities Regulatory Policy Act of 1978. Title I - Retail Regulatory Policies

for Electric Utilities includes certain ratemaking standards for utilities having annual retail sales in excess of 500 million KWH. The only utility which this Act applies to in Alaska is Chugach Electric. The ratemaking standards are:

1. Cost of Service. Rates charged by an electric utility for electric service to each class of consumers should be designed to reflect the cost of providing such services to that class. The costs of providing service should be on the basis of methods prescribed by the state regulatory authority (or the utility in the case of a nonregulated utility)* and should permit identification of differences in cost-incurrence for each class of consumers attributable to daily and seasonal time of use of service. The cost determination should also permit identification of differences in cost-incurrence attributable to differences in customer, demand and energy components of cost. The methods of cost determination should take into account the extent to which total costs to a utility will change if capacity is increased to meet peak demand relative to base demand and if additional kilowatt hours of energy are delivered to consumers.

2. Declining Block Rates. The energy component of a rate (or the amount attributable to the energy component) charged by a utility for service to a class of consumers should not decrease as kilowatt hour consumption by that class increases, except to the extent that such a decrease is

justified by a decrease in costs.

3. Time-of-day and Seasonal Rates. Rates charged by a utility for electric service to each class of consumers should, to the extent they are cost-effective, be on a time-of-day and seasonal basis which reflects the costs of providing service to each class at different times of the day and in different seasons of the year, respectively. A time-of-day rate should be considered cost effective if the long-run benefits of such a rate are likely to exceed costs associated with such rates.

4. Interruptible Rates. Each utility should offer its industrial and commercial electric consumers an interruptible rate which reflects the cost of providing interruptible service.

5. Load Management Techniques. Each utility should offer its electric consumers such load management techniques as the state regulatory authority (or the utility in the case of a nonregulated utility) determines will be practical, cost effective, reliable and provide useful energy or capacity management advantages to the utility. A technique should be considered cost effective if it is likely to reduce maximum kilowatt hour demand on the utility and if, in the long-run, the costs saved by the demand reduction exceed the costs of implementing the technique.

6. Lifeline Rates. Title I does not prohibit the adoption of a rate for electric service, lower than the cost of such service, for essential needs as defined by the state regulatory authority (or the utility in the case of a nonregulated utility), or residential consumers.

These ratemaking standards do not supplement or override state utility law or regulation. Nothing in this Title prohibits a state regulatory body from making a determination that a standard is not appropriate for implementation.

5. "to encourage the optimal use of exhaust heat"

The Committee recommended under this proposal that each power generation facility utilize waste heat to as great an extent as feasible as; 1) a condition of obtaining a lease on state land; 2) as a condition of using state royalty oil or gas taken "in-kind"; 3) for pipeline right of way over state land. The degree to which utilization of waste heat is feasible shall be determined by regulation adopted by the Commissioner of Commerce and Economic Development.

Title IV Policy Guideline Related to Planning for
 In-State Power Development and Use

The Committee recommended amending AS 44.56.224 (Long-Term Plan) to require that equal consideration be given to all types of power generation production facilities (except those based on nuclear fuels) which are technologically feasible. The plan must promote efficient use of facilities and fuels consistent with energy conservation goals. This plan is prepared by DPDP in conjunction with the APA.

2. "to encourage the availability of energy to all people of the state at the lowest reasonable rates consistent with good management practices"

The recommendation under this guideline is presented in the Appendix as a report from a liaison committee to the State Energy Policy Committee.

THE RESERVE FOR ENERGY FACILITIES DEVELOPMENT ACCOUNT

A Report to the State Energy Policy Committee

From the Liaison Group
Rep. Jim Duncan
Rep. Ernie Haugen
Rep. Leo Rhode, Chairman
Senator Bill Ray
Senator Ed Willis

Prepared under contract with the Legislative Affairs Agency

By Mike Doogan

INTRODUCTION

The Liason Group was formed during the interim to recommend to the State Energy Policy Committee uses of the Reserve for Energy Facilities Development Account (REFDA).

At its November 29 meeting, the Liason Group reached the decision to recommend that the REFDA proceeds be appropriated to the Alaska Power Authority's Power Project Revolving Fund, where they could be used to assist in the construction of power projects.

This decision was based on three considerations.

First, the Alaska Power Authority is the agency created to give direct state assistance to power project development in Alaska. As such, it is most appropriate agency to receive REFDA proceeds. Of the financing tools available to the power authority, the Power Project Revolving Fund is the most flexible because loans can be made through it.

Second, most of the testimony presented to the Liason Group favored this approach.

Third, this decision is consistent with energy policy guidelines approved by the State Energy Policy Committee, particularly:

TITLE I Policy Guidelines Related to Development and Management

1. "to distribute the risk of development between the State of Alaska and developers of energy resources"
2. "to encourage the development of economically viable renewable energy resources for in-state use"

and:

TITLE IV Policy Guidelines Related to Planning for In-State Power Development and Use

2. "to encourage the availability of energy to all people of the state at the lowest possible rates consistent with good management practices"

The Liason Group determined that additional legislation was necessary to implement its decision. On December 19, the Liason Group, through the Legislative Affairs Agency, entered into a contract with Mike Doogan to oversee the preparation of the legislation and to write this report to the State Energy Policy Committee.

THE RESERVE FOR ENERGY FACILITIES DEVELOPMENT ACCOUNT:
STRUCTURE AND PURPOSE

In passing legislation (FCCS SCSHB 222) revising the procedures for planning and funding of capital projects, the second session of the 10th Alaska Leg-

islature created the Reserve for Energy Facilities Development Account.

The pertinent section of the law is sufficiently brief to be set forth in its entirety. It reads:

Sec. 37.05.158 GENERAL FUND: "RESERVE FOR ENERGY FACILITIES DEVELOPMENT" ACCOUNT.

(a) There is created within the general fund the "reserve for energy facilities development" account.

(b) Five per cent of the annual receipts paid the state from mineral lease bonuses and rentals for state land and royalties derived from minerals produced on state land shall be allocated to the reserve for energy facilities development account.

(c) The proceeds of the reserve for energy facilities development account shall be subject to annual appropriation by the legislature. 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.

Several facets of the REFDA are noteworthy.

First, the REFDA is an account, not a special or dedicated fund. As such, it should be isolated as an accounting line in the general fund and its proceeds should remain in the general fund until appropriated.

Second, the REFDA proceeds come not from taxes and licenses but from mineral lease income. Dedicated funds, such as the Alaska Permanent Fund and the Renewable Resources Development Fund, have the same funding source. In fact, the REFDA and the Renewable Resources Development Fund receive similar shares (five per cent) of this mineral lease income.

Third, the REFDA proceeds are subject to the same

annual allocation and appropriation procedures as other general fund money.

Fourth, no language exists --- other than the title of the account --- directing the REFDA proceeds to a particular project or type of project.

THE RESERVE FOR ENERGY FACILITIES DEVELOPMENT ACCOUNT:
STATUS AND SIZE

There is currently, in one sense, no REFDA.

The law directs two actions by the executive branch involving the REFDA: the isolation of five per cent of state mineral lease income within the general fund and the inclusion in the governor's budget of plans for the use of these REFDA proceeds. As of this writing, there is no REFDA isolated within the general fund and the governor's FY 1980 budget contains no plans for the use of REFDA proceeds.

Since the REFDA has not been isolated, no figure is available for it. But, since the REFDA and the Renewable Resources Development Fund have similar revenue sources and shares, the figure projected for the Renewable Resources Development Fund should equal the projected REFDA proceeds.

Based on figures found in Revenue Sources FY 77-79 (September Update), projected FY 1980 REFDA proceeds are \$15,275,000.

In addition, there may be more REFDA proceeds

available for appropriation this year. The REFDA's effective date was July 1, 1978, the first day of fiscal year 1979. Since the REFDA proceeds should therefore have been isolated for FY 1979, and since no appropriation of those proceeds was made in the FY 1979 budget, it may well be that they are available for appropriation this year. This would mean, according to the same figures as those cited above, an additional \$13,660,000, for a total of \$28,935,000.

THE ALASKA POWER AUTHORITY: STRUCTURE, PURPOSE AND POWERS

Before detailing the Liason Group's recommended legislation, it is necessary to take a brief look at the current status of the Alaska Power Authority and its Power Project Revolving Fund.

The Alaska Power Authority (defined in AS 44.56) is a public corporation in the Department of Commerce and Economic Development but with a separate and independent legal existence. It is governed by a five-member board consisting of the Commissioner of Commerce and Economic Development and four at-large members appointed by the governor and confirmed by the legislature.

Amendments passed during the second session of the 10th Alaska Legislature (SCS CSHB 442) broadened the scope of the power authority. Its purpose, as amended, is:

Sec. 44.56.070 PURPOSE OF THE AUTHORITY.
The purpose of the authority is to pro-

mote, develop and advance the general prosperity and economic welfare of the people of Alaska by providing a means of constructing, acquiring, financing and operating power production facilities limited to fossil fuel, wind power, tidal, geothermal, hydroelectric or solar energy production and waste energy conservation facilities.

To achieve this purpose, the authority is given a wide range of corporate powers, including the power to select or reject projects to receive assistance according to regulations it promulgates.

If the authority chooses to assist a project, it has a wide range of financial options to work with.

The authority can acquire money through: the sale of revenue bonds, direct appropriation of state funds by the legislature, return of interest on its investments, borrowing, and receipt of funds under contractual agreement.

In return, the authority can give financial assistance through: performing services, purchasing project bonds, selling its own bonds for a project, and making loans to a project through the Power Project Revolving Fund.

There are, however, constraints on these powers of the authority. Its operating and capital budgets are subject to the Executive Budget Act. Issuance of revenue bonds and promulgation of regulations are subject to approval by legislative resolution. The authority is

subject to annual audit and it must, before March 1 of each year, submit an annual report to the governor and legislature. Finally, it is subject to Alaska's public records and open meetings laws.

THE POWER PROJECT REVOLVING FUND: STRUCTURE, PURPOSE AND SIZE

The Power Project Revolving Fund (AS 44.56.170, as amended by SCS CSHB 442) is a separate fund managed as a trust by the power authority. It is designed to allow the authority to offer loans to projects. Money in the fund comes from legislative appropriation and the return of principal of and interest on previous loans.

By law, the authority can make loans from the fund to electric utilities, regional electric authorities, cities, boroughs, regional and village corporations, village councils and nonprofit marketing cooperatives. Loans may be made for everything from feasibility studies (some of which may be forgiven) on to construction of small-scale power production or conservation facilities and potable water supplies.

The authority may establish loan rates and terms by regulation, with the exception of loans made to projects carrying loans from the Water Resources Revolving Loan Fund (AS 44.56.170(f) contains terms for these loans). A copy of regulations adopted by the authority but not

yet in force is attached to this report.

To date, the Power Project Revolving Fund has received and loaned slightly more than \$1 million. An account of these transactions, prepared by the power authority, also is attached.

PROPOSED LEGISLATION: AN EXPLANATION

The Liason Group found three types of legislation necessary to implement its decision to appropriate the REFDA proceeds to the Alaska Power Authority's Power Project Revolving Fund.

Amendments to the REFDA

First are two versions of an amendment to the Reserve for Energy Facilities Development Account (AS 37.05.158), designed to strengthen the intent of the previous legislature that the REFDA proceeds be used for the development of energy facilities. As was pointed out previously, only the title of the REFDA now expresses this intent.

The first version (attached as Section 1 of WO #5992) requires that the REFDA proceeds be appropriated only for the construction of power projects.

The second version (attached as Section 1 of WO #5986) requires that the REFDA proceeds be used for the construction of power projects unless those proceeds are otherwise appropriated by the legislature.

Neither of these amendments is thought to be binding on future legislatures (see attached memorandum from Donna Spragg Pegues). Indeed, the constitutional prohibition against dedicating funds may make it impossible to impose such a constraint on the REFDA. Ms. Pegues' memorandum offers a third amendment option for consideration.

Amendments to the Power Project Revolving Fund

Second are two amendments to the Alaska Power Authority's Power Project Revolving Fund (AS 44.56.170). These are attached as Section 2 of both WO #5986 and WO #5992.

The first amendment adds a subsection (g) which requires a finding that the applicant's only financing option is a loan from the fund. It also requires that if a subsidy of loan payments is necessary, such a loan cannot be made unless the amount of the subsidy is available to the authority.

The second amendment adds a subsection (h) which allows the authority to set up an account for the purchase of revenue bonds in the Power Project Revolving Fund. Under the amendment, the authority may purchase such bonds secured by a subordinate pledge of revenues from the project being financed. (Please note changes made in the draft legislation by this writer.)

Additional Definitions

Third are two definitions added to the Alaska Power Authority Act (AS 44.56.230). These are attached as Section 3 of both WO #5986 and WO #5992.

The first definition, added as (8), is of "small-scale", a term used in the current statute but not defined. This definition would allow the authority to finance currently feasible hydroelectric projects of a moderate size.

The second definition, added as (9), is of "construction costs", a term used throughout the new subsection (g) added to AS 44.56.170.

Appropriations Bill

Fourth is a draft appropriations bill (attached as WO #5991). This is presented merely as a model, since there are a variety of methods for appropriating all or part of the REFDA proceeds to the Power Project Revolving Fund. It is included simply to point out the necessity of an appropriations vehicle to transfer the proceeds.

Original sponsor: State Affairs
Committee

Offered: 5/28/77
Referred: Rules

1 IN THE HOUSE

BY THE RESOURCES COMMITTEE

2 SENATE CS FOR CS FOR HOUSE CONCURRENT RESOLUTION NO. 67

3 IN THE LEGISLATURE OF THE STATE OF ALASKA

4 TENTH LEGISLATURE - FIRST SESSION

5 Relating to the development of a compre-
6 hensive state energy policy.

7 BE IT RESOLVED BY THE LEGISLATURE OF THE STATE OF ALASKA:

8 WHEREAS the President of the United States has recently directed atten-
9 tion to the critical problems involving the conservation, production and
10 development of energy resources of the nation, offering for the consideration
11 of Congress and the American people a Comprehensive National Energy Policy
12 Plan; and

13 WHEREAS, with its reserves of oil, gas and coal, abundant tidal and
14 hydroelectric sources, and unique opportunity to utilize other renewable
15 energy factors such as wind, solar, and geothermal power, the State of Alaska
16 enjoys a preeminent position as a supplier of a major portion of the nation's
17 energy resources through the next decades and an unparalleled opportunity
18 similarly to develop and implement a realistic state energy program to meet
19 future residential, commercial, transportation and other demands; and

20 WHEREAS increasing domestic energy demands, coupled with rising produc-
21 tion and processing costs and transportation requirements and expenses,
22 severely burden Alaskans and hence require the development of a comprehensive
23 energy policy to meet the needs of the people of the state; and

24 WHEREAS the development of a comprehensive state energy policy should
25 involve the executive and legislative branches of government on a cooperative
26 basis, with opportunity for public participation and comment, in a forum
27 which will examine alternative courses and lay the groundwork for subsequent
28 action;

29 BE IT RESOLVED by the Alaska State Legislature that there is established

1 a temporary State Energy Policy Committee composed of the following members
2 to identify the problems and initiate solutions with respect to the develop-
3 ment of a viable state energy policy:

4 (1) three members of the Senate appointed by the president;

5 (2) three members of the House appointed by the speaker;

6 (3) the commissioner of commerce and economic development or his
7 designee;

8 (4) the commissioner of natural resources or his designee;

9 (5) four members appointed by the governor, one of whom shall
10 represent each of the following public interests: consumer concerns, con-
11 servation interests, public utilities, and the state's nonrenewable energy
12 resource industry; and be it

13 FURTHER RESOLVED that the committee established by this resolution shall
14 through a process which examines in detail the individual efforts to develop
15 Alaska's domestic energy resources, including the protection and development
16 of the state's nonrenewable resource reserves, and only after opportunity for
17 public participation, make a preliminary report not later than January 1,
18 1978, and a final report not later than January 1, 1979, to the governor and
19 the Legislative Council on its recommendations with respect to development of
20 a comprehensive state energy policy, including but not limited to, coordina-
21 tion of state plans and programs with the national effort, the timely and
22 proper development of additional nonrenewable resources and their transporta-
23 tion and delivery to the markets of the state and nation, the effects of
24 state and federal energy regulatory functions and pricing, and the develop-
25 ment of alternative renewable energy resources on a regional or community
26 basis especially in rural areas of Alaska, and that the committee's report
27 formulate guidelines and suggest the means by which to marshal additional
28 resources to maintain a continuing energy planning and development program;
29 and be it

1 FURTHER RESOLVED that the committee may proceed in its work through the
2 establishment of one or more subcommittees; that, with the consent of the
3 governor, it may apply for federal, state and private financial assistance to
4 undertake and complete its work; and that the committee may extend an invita-
5 tion to representatives of any agency of the federal government concerned
6 with energy planning and development to serve as ex officio members of the
7 committee.

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