

UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

SEPTEMBER 28, 1974

STATEMENT OF
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BEFORE THE
SENATE COMMITTEE ON COMMERCE
NATIONAL OCEAN POLICY STUDY

I appreciate, Mr. Chairman, the opportunity to discuss for the Study, some of the issues regarding the proposed development of the OCS off the coast of California. While the specific issue of further Federal leasing of the California Outer Continental Shelf is the focus of this hearing, I believe it must be viewed in the context of a larger national issue: How do we, as a Nation, attempt to balance the supply of and demand for energy at minimum cost--not just in dollars but also at minimum cost to our environment.

As you know, the GAO is involved in a number of reviews concerning the OCS. We are also concerned with your study of national ocean policy, as authorized by Senate Resolution 222. In particular, we have been working very closely with the National

Ocean Policy study group and currently have in process four separate reviews in that area which are being executed on a priority basis.¹

With respect to the OCS, we reported last year to the Conservation and Natural Resources Subcommittee of the House Committee on Government Operations that improved inspection and regulation by the Department of the Interior could reduce the possibility of oil spills--and we made recommendations to the Secretary along these lines. In addition, work is now underway to determine if Interior's programs are contributing to maximizing the discovery and development of energy resources both on and offshore. We are considering lease production experience, environmental impacts, and whether the public is recovering a fair return on the disposition of its natural resources.

Each of these efforts is designed to help illuminate both the issues and opportunities associated with the complex of problems surrounding development of a national ocean policy and a national energy policy. The prudent management of Federal oil and gas resources on the OCS poses issues at the very interface of these important National tasks.

¹Review of Availability of Northern Anchovy for Production of Fish Meal; Revitalizing U.S. Fishing by Better Resource Management; Revitalizing U.S. Fishing by Developing New Fisheries; and Review of the Federal Organizations Involved in Marine Science and Oceanic Affairs Programs.

Some of the basic questions to consider here today are--Can we get by in this country without oil and gas from the California OCS? If not, how soon do we need it? What options do we have?

The west coast as a whole was able to supply about 56% of its demand for oil in 1972 and about 50% in 1973--and this percentage is expected to go lower. For natural gas, the corresponding number has been about 21% both years. And, if we as a Nation continue on our historic course of increasing energy consumption at about 3.4% per year, in some 20 years, we would double our consumption. To stay on that road would require full development of most of our major energy sources: all of our OCS resources, plus western coal and oil shale, and nuclear power. And, we would have to depend on imported oil.

Of course, there are options. They are real, they are possible and they could happen. The work of the Ford Foundation's Energy Policy Project, whose final report will be published next month, has studied these options in detail. As Deputy Director of that Project, I was able to consider first hand the social, political, and environmental implications of reducing U.S. demand for energy. I am convinced that we can do it.

In fact, by the late 1980's we can even get to a situation that has been called "zero energy growth". We could do this by sharply limiting dependence on fossil and nuclear fuels, using all possible

means of conserving energy and increasing the rate of shift of future economic growth to sectors of our economy having low energy consumption. This means decreasing the demand for the more energy intensive activities that we are so accustomed to associating with national economic growth and health.

Then of course there is a middle way, a "technical fix", which emphasizes conservation by squeezing the fat out of our energy consumption, and about which I will be saying more later on.

In fact, under either of the lower growth alternatives, I can say unequivocally that we could do without further leasing of the California OCS for the indefinite future. And having said that, I must immediately point out that such an action might not make sense from a National point of view. Any decision to develop or not develop any resource only makes sense in the context of weighing the trade-offs among alternative options. There truly is no such thing as a free lunch.

If we decide to relieve the pressure to drill the OCS off the California coast a price must be paid. We must either put the burden on other sources and localities--who are no more anxious to develop their resources than are people here in California-- or we must all make the hard decisions, even sacrifices, required to reduce consumption. We just can not stop everything and do nothing. We have only a limited number of options for improving

supply and there are trade-offs among those as to costs, environmental damages, and dependability. And while there are greater options in reducing demand, they tend to be difficult to implement because of traditional fears that reduced demand necessarily means reduced economic growth, a proposition incidentally, that I do not believe.

The timeframe of these decisions is important too. We will need to depend mainly on oil and gas for energy in the next 5 to 10 years. Even crash efforts to develop the western oil shale and coal options or to make large increases in nuclear power generation will take at least that long before significant impacts will be felt in reduced pressure for more oil and gas.

If its going to be difficult to decrease demand and troublesome to increase imports, then we ought to make sure that we drill for oil where it's most likely to be found and least likely to do irreparable damage. Not until we answer some basic resource questions can we really make sensible leasing decisions. For example, what are the potential recoverable resources in this region? How do they relate to regional and national supply projections? What economic, social and environmental impacts can be expected?

For example, it is impossible to understand the role of the OCS in the national energy picture without an adequate understanding

of the physical data base of the public's resources. If we do not know what we own it is pretty hard to know what to do with it. There is a wide divergence in resource estimates, in part because there has been little detailed geological or geophysical exploration activity, in part also because much of this "science" is still as much an "art" as a science.

Official USGS estimates are that the potential for the OCS off the Pacific Coast as against the total OCS is only about 8% for oil and 2-1/2% for natural gas. This is not a very big percentage. But industry estimates are much higher, 26% and 25% respectively. I submit that decisions on whether to develop the California OCS should take these enormous discrepancies into account.

In addition, in past lease sales, the government has depended almost entirely on industry nominations in deciding when and where to hold the sales. With an inadequate understanding of our resources and their potential value, the government is not in a position to select wisely those tracts to offer nor is it in a very good position to determine whether it is receiving a fair market value return from the sale of public resources, particularly in situations where there are relatively few bidders per tract. We need to improve the level of our resource understanding. We should not lease the OCS at so fast a rate that it gluts the market and weakens competition for tracts.

And we must keep in mind that leasing of the OCS does not mean production. If we were to open the entire OCS to leasing today, no one would have a clear idea of how much more production could be expected or when. The constraints--lack of rigs, pipe, trained labor, and environmental and legal concerns--all argue against a policy of rapid leasing.

In this connection the House Appropriations Committee in reporting out the Interior Department's 1975 appropriations expressed its concern that, for those OCS lands which are leased, there be expeditious exploration and development. The Committee also insisted on assurances that the environmental impact of proposed OCS leasing actions be carefully and fully assessed before the leases are made. It also insisted on full public participation and complete knowledge by the Government and the public of the consequences of leasing or not leasing on the relationship between production, consumption, and energy needs.

The Committee directed, that prior to expanding its leasing program beyond three million acres a year, Interior acquire and evaluate data which would at a minimum, justify the proposed leasing level in terms of: (a) the role of offshore oil and gas in a comprehensive energy strategy or plan; (b) the availability of rigs, material and manpower; (c) the availability of capital to purchase and develop the leases; (d) the ability of the Department's

Bureaus to administer the program; (e) the effects on revenues returned; (f) the relative environmental risks; (g) the onshore environmental, social, and economic impacts; and (h) the relationship of potential offshore production to total reserves, consumption and energy conservation practices.

Full compliance with the Committee's desires in this area would go a long way towards better understanding of OCS leasing issues, and would lead to a more rigorous appraisal of problems and trade-offs before final decisions are made than is typically the case.

I remarked earlier about the possibility of reducing the pressure on developing new supplies by considering the potentials for energy conservation. For example, the industrial and commercial sectors of our economy account for about 55% of our total energy consumption--this compares, say, to the 20% of the total that goes for household use. There is a large potential for saving energy in these sectors, most likely in the four following major categories;

- (1) more efficient steam generation
- (2) waste heat recovery
- (3) materials recycling
- (4) more efficient building heating and cooling system design.

Large energy savings are also possible in particular industries. For example, in aluminum production, a new smelting process has the

potential for saving about 30% of the energy now used, and savings of about 50% appear possible in the paper making process by reducing water requirements. Interestingly, both of these new energy saving technologies were not the fruit of an energy conservation effort but rather of a need to meet air and water pollution limits. But the main point to make is that savings of 25-40% are possible in these and many other areas.

Many people argue that we, quite literally, can not afford to save energy. Recent analyses made by the Ford Foundation's Energy Policy Project indicate this is not the case. From a national perspective, in general, the capital costs for energy conserving technologies are substantially lower than the corresponding capital costs of energy production and processing. The cumulative capital requirements for industrial and commercial energy conservation measures between 1975 and 2000 would be about \$200 to \$250 billion (in 1970 dollars). To produce the equivalent energy in terms of oil, coal, natural gas, and electricity would require capital costs of about \$350 billion. Thus it appears that saving energy also saves money, money which could be invested in public service programs which reduce energy demand even further, such as mass transit and new community development.

But these conservation actions will not be taken without firm national commitments to them. They won't enact themselves and they won't administer themselves. With the embargo lifted the nation is going back to sleep, and in a real sense the options

are being narrowed as the dialogue narrows. For example, if the issue of leasing the California OCS is described and argued purely as development vs. environment, many options are foreclosed simply by the way the issue is framed. Add, however, the issue of balancing national supply with demand, of considering regional supply and demand needs, and factor in other social values. All of a sudden the options open up, including energy conservation. Decisions made in such a broader context, are it seems to me, by definition, better decisions--no matter which way they go.

If it turns out that more energy supply is needed, as it likely will, even with conservation, then we must decide how we can trade-off the likely environmental damages resulting from such things as exploration of Alaska oil and gas or OCS oil and gas, or western coal, or spills from tankers carrying increased imports.

In a recent University of Oklahoma technology assessment of OCS oil and gas operations, a comparison was made of the environmental impacts due to increased OCS operations as against increased oil imports and as against the use of the trans-Alaska pipeline (TAPS). That study concluded that the OCS is less of a threat to the worldwide environment than increased imports. If only U.S. waters are considered, imports appear to have the advantage. And, so far as TAPS is concerned, the study concluded that its environmental risks are probably greater than those of OCS development. Such conclusions must, of course, be

viewed simply as the "intelligent guesses" that they are since there is no experience on which to base an estimate of the environmental damage of TAPS.

The Council on Environmental Quality has reported on the relative risks of oil and gas development in the Atlantic and Gulf of Alaska OCS. They undertook an analysis which incorporated computer modeling techniques and arrived at an estimate of the overall relative degree of risks to the marine, coastal, and human environment. An extension of such an analysis could be undertaken to help get at a ranking of relative risks to include the OCS areas off California which are now in question. One can not hang his hat on such analysis entirely, but it is better than no analysis. In any event, there appears to be considerable potential for improving the technology of OCS operations to decrease spills, blowouts, and other accidents, and to clean up spills once they occur. But according to a recently conducted study of oil spills in the marine environment which was done for the Ford Foundation's Energy Policy Project, we have a very long way to go in this area.

To summarize then, the pressure to develop new OCS supplies can be lessened by conservation practices which act to decrease demand or to hold it constant. Increasing supply or decreasing demand are like two sides of the same coin.

If it turns out we need to increasingly exploit one or another of our energy resources, we ought to have some way

of deciding which is the best bet in terms of limiting environmental damages and in terms of its being worth exploiting. We have to have a fairly good notion of what is there and what it is worth, and what it will cost to exploit it. And by this I mean all the costs: economic, social, and environmental.

The problems inherent in attempting to accelerate OCS leasing to an arbitrary rate of 10 million acres a year stem from our inability to evaluate fully what is being offered, to obtain a fair value for it, to insure that the development pace can match the leasing pace, and to insure ourselves that we can protect our environment if we do it.

Finally, it seems to me that the kinds of analysis expected to be undertaken under the Coastal Zone Management Act of 1972 and the National Environmental Policy Act of 1969 are precisely the kinds of analysis which must be made if intelligent decisions are to be made regarding OCS leasing.

If it is indeed absolutely critical to the Nation that the California OCS be developed immediately, then such studies must be set aside and the development must proceed apace.

However, let's assume that such analyses could be done in a reasonable period of time, say 1 or 2 years. And let's remember that the development which would follow leasing would be, for all intents and purposes, irreversible. Given these assumptions, I

would argue that the burden of proof must rest on those who would proceed with immediate leasing without the benefit of such analyses.