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Statement by

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before

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of the U.S. Department of the Interior

on

Proposed California Oil and Gas Lease Sale (OCS #48)

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My name is John H. Lichtblau. I am Executive Director of the Petroleum Industry Research Foundation, Inc. My expertise is in the field of petroleum economics and I would like to discuss some economic aspects of the proposed federal offshore lease sale No. 48. Specifically, I would like to focus on the question whether the proposed lease sale is in the national economic interest. This question has taken on increasing importance in the debate over the lease sale in view of the existence of what has been termed an "oil surplus" on the U.S. West Coast since early this year. The argument has been made that if the West Coast currently produces more oil than it can absorb, why drill for still more oil with all the attendant environmental risks, when this could only add to the surplus. Let me say first that the resource potential of the area to be leased consists not only of oil but also of gas. The surplus argument has of course no applicability to the latter fuel since the West Coast is less than 50% self-sufficient in natural gas and has to import the balance from interstate and foreign sources. But the surplus argument is significant to the question of oil drilling and I would therefore like to start out by examining it.

California itself does not have any surplus. In the first half of this year the crude oil requirements of California refineries were about 1.8 million b/d while the State's crude oil production was only about half this volume. Thus, California continues to be a major importer of crude oil, both from other states and from abroad, as it has been since the early sixties.

The West Coast as a whole, however, does have a surplus in crude production, other than low sulfur, since production from the Alaskan North Slope began to exceed 700,000 b/d which it has for the past seven months. Current North Slope production is 1.2 million b/d. The excess of about 450,000 b/d is shipped by tanker to refineries at the U.S. Gulf Coast, East Coast and the U.S. Virgin Islands. Thus, West Coast petroleum production is really not in "surplus" as that term is generally used, namely that the supply of the commodity in question is in excess of the demand for it at prevailing prices. This is definitely not the case with West Coast crude oil, since virtually none of it is presently shut in.

It is true, of course, that the California refinery market, together with that in the Puget Sound area, represents the economically most attractive market for Alaskan crude oil because of its relative proximity to the producing area. For shipments to more distant U.S. markets the additional freight cost must be absorbed by the seller who must be competitive with foreign oil in all markets in order to dispose of the oil. The result has been that California has become the preferred market for Alaskan crude but the eastern U.S. markets remain sufficiently attractive to absorb the balance of Alaska's current productive capacity.

Some concern has been expressed that North Slope producers may not be interested in developing additional production if it has to be sold in the relatively less attractive U.S. markets outside the West

Coast. This has led to the argument that an increase in California production, by backing out actual or potential North Slope production, could act as a disincentive to additional exploration efforts at the North Slope.

For several reasons, I believe such a situation is unlikely to develop. One is that the 2 million b/d capacity of the existing Alaskan pipeline is currently only 60% utilized. Given the very high fixed cost of this line, there is a built-in incentive to increase its utilization over time if the additional oil can be found. This, together with the expected increases in world oil prices is likely to make the sale of incremental volumes of North Slope crude commercially attractive in the eastern U.S. If necessary, an official policy to achieve this is likely to be devised, since the maximization of domestic oil production, within certain limits set by other considerations, is a keystone of our energy policy. Another reason is that two pipeline projects which would move substantial volumes of Alaskan crude from the West Coast to the U.S. Interior are currently under active consideration. For both projects the transportation cost would be less than for tanker shipments from Alaska to the Gulf Coast. It is reasonable to assume that at least one of the projects will be in place by the time oil production from Lease Sale No. 48 could reach a significant commercial level--about 5 years from now. There is also the possibility that the government may, with Congressional concurrence, permit at some future time the limited exportation of Alaskan crude in exchange for the tied importation of an equivalent volume of foreign crude to

the U.S. Such exchange would not affect our net import position one way or the other, since it would be on an export-for-import basis. Still, another, though relatively smaller, factor is the expected growth in West Coast crude oil requirements. In 1985 crude oil demand is likely to be some 350,000 b/d above last year's level. A major portion of the increase will probably have to come from Alaska, even if the estimated "most probable" quantities of oil are found in the still undrilled California offshore areas, given the depletion rate of the State's older producing fields. Furthermore, as more West Coast refineries put in desulfurization facilities over the next 5-6 years, some of the 500,000 b/d or low sulfur crude oil currently imported from abroad can be replaced by higher sulfur Alaskan or other regional crudes.

Altogether, then, the much debated West Coast oil surplus merely reflects the fact that the region has excess oil supplies which can be profitably marketed in other parts of the country. In this the region is not different from the Gulf Coast region whose excess oil and gas supplies fuel much of the rest of the country or from the western coal producing states. In fact, interstate or inter-regional sales of a State's or region's surplus output of any commodity is such a basic aspect of our domestic economy that it is surprising that a serious argument should be made against additional oil exploration in the California offshore area on the grounds that there may not be any local need for additional supplies.

The argument might possibly have some merit if production from new fields could cause the shutting in of production from existing ones. As we have seen, this would not be the case for existing or potential Alaskan production. However, a small volume of crude production was briefly shut in earlier this year in California because of inability to dispose of it at acceptable prices. But the reason for this was not a general market glut but the peculiar distortions which the Government's crude oil entitlements introduced into the market. Thus, producers of heavy crude oil from fields established in or before 1973 found it impossible to sell their product at the allowed ceiling price of roughly \$5/bbl. This was not because the price was too high. Similar quality foreign crude oils were selling at landed prices of \$12.50/bbl or more. The reason was that the entitlement obligations incurred by refiners purchasing this type of California crude made it more attractive for them to buy imported or Alaskan crudes which carry no entitlement obligations.

I do not wish to burden you with an explanation of the complexities of the entitlements system. But the situation I have described has been recognized and substantially remedied by the DOE through changes in the entitlement system so that today virtually no California production is shut in for lack of market outlets.

Thus, there can be no question that every barrel of additional crude oil found in California will find a market in the U.S. and,

hence, will displace a barrel of imported crude oil. The need to do so to the utmost extent possible has been explained and endorsed by all U.S. Administrations since 1973 and has been widely accepted by all parties with an interest in and/or an understanding of the question of oil imports.

I don't propose to reiterate these explanations here. They all relate to the fact that the degree of our dependence on foreign oil is inversely related to our national security in its broadest sense. I would like to point out just one fact in this connection. In every year since 1970 the U.S. has withdrawn more oil and gas from its pool of reserves than it has added in the form of new discoveries. As a result, our oil reserves have declined from 11.7 times the annual production rate in 1970 to 10.3 the rate in 1977, despite the fact that production itself dropped by 14% during this period. Similarly, our gas reserves declined from 13.2 to 10.7 times the annual production rate in the face of an 11.5% production drop. Thus, even though every year we take less oil and gas out of the ground than in the previous year, we are still withdrawing more than we put in through new discoveries. There is every indication that the declines in the reserves/production ratios of both fuels will continue for the foreseeable future. Clearly, if we do not succeed in reversing, or at least arresting, this trend, our oil import levels could well become unmanageable by the second half of the 1980's.

The Secretary of Energy was recently quoted as estimating a U.S. oil import level of 9-10 million b/d for 1985. This is a major upward revision of the 6-7 million b/d target figure for 1985 contained in the Administration's National Energy Plan of April 1977. The higher level may still be manageable in terms of foreign supply availability and our ability to pay for it. But the new estimate implicitly assumes a reversal of the decline in domestic oil production before 1985. Otherwise, the import level is likely to be substantially higher, as will be the price of imported oil. Establishing additional production from conventional near-by offshore oil and gas resources has a major role to play in this endeavor to arrest the decline in production, since the energy from this source is probably less difficult and costly to bring on than most of the energy sources currently considered as potential substitutes for conventional domestic oil and gas.

It is sometimes argued that the likely volumes of production in some offshore leases, such as the ones under consideration here, are not significant enough to justify incurring the environmental risks associated with their exploration and development. Actually, most of the existing U.S. offshore oil fields are not of giant size. Yet, together they produce 1.13 million b/d or 13% of our total national output.

The areas under the proposed lease No. 48 have a 5% chance to become a major producer, according to the U.S. Geological Survey. While this is obviously a low probability, if the Geological Survey's

"maximum" recoverable reserves of 2.3 billion barrels of oil and/or two trillion cubic feet of gas were to be found, it would have a significant long term impact on our national energy supply and demand balance.

But even the Geological Survey's "most probable" estimates of 715 million barrels of oil and 860 billion cubic feet of gas would by no means be insignificant. According to the Interior Department's Draft Environmental Statement, the average annual oil production under this assumption for the 10 year period, 1983 through 1992, would be 51.7 million barrels or 142,000 b/d. This would be equivalent to about 1.4% of likely total U.S. oil import requirements during this period. If we assume the real landed cost of foreign oil during this period to average about 15% above the current price (in 1978 dollars) the average annual import savings would amount to nearly \$900 million (in 1978 dollars).

Similarly, the "most probable" gas find would result in an average annual production rate of 62.2 billion cubic feet during the same 10-year period. Under the new energy legislation, the unit value of this gas during this period might average about \$2.75/Mcft in constant (1978) dollars. Since virtually all of the additional gas could be expected to back out oil, directly or indirectly, the annual oil import savings from the gas production would be about \$180 million. Thus, overall, the "most probable" oil and gas finding rate in Lease Sale No. 48 would result in an average annual import savings of over \$1-billion (1978 dollars) during the period 1983-92. Volumetrically, the import substitution would be equivalent to about

1.8% of our total annual import requirements. I submit that for one single lease sale such a prospect is by no means insignificant in constraining the growth in our oil imports dependency and the resulting dollar outflow.