



Telephone: (212) 867-0052
Fax: (212) 972-9849

Petroleum Industry Research Foundation, Inc.

122 EAST 42nd STREET

New York, N. Y. 10168

**Comments on the
National Energy Strategy**

**Presentation by
John H. Lichtblau**

**before the
U.S. Secretary of Energy**

**First Public Hearing
on the National Energy Strategy**

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Thank you for inviting me to participate in the opening hearing of this important national debate.

■ ***The nation needs a National Energy Strategy: a practical program on how to move towards attainable goals.***

The Department of Energy is to be commended for its effort to develop an integrated National Energy Strategy. I think the effectiveness of the new project begins with the selection of the title. A National Energy *Strategy* is a better nameplate than the time worn slogan of a National Energy *Policy*. A policy is often just a lofty description of a desirable goal but does not address the question of how realistic the goal is nor what steps and measures are required to achieve it. A strategy, on the other hand, is usually a practical program on how to move towards attainable goals.

But while the new energy strategy could be different from an energy policy, this Administration has inherited an energy policy from its predecessor. This is not always recognized because it is essentially a passive policy, i.e. it lets market forces determine supply, demand and prices as much as possible within the given structural rigidities of the market. (The one active aspect was the continued development of the Strategic Petroleum Reserve.) This energy policy was not borne out of neglect or bureaucratic inaction but represents the previous Administration's deliberate decision to minimize direct government intervention in the energy sector. Given the market trend in the early 1980's, this policy seemed appropriate and convenient: prices declined throughout the period, as did consumption, while Lower-48 production remained stable and Alaskan production rose; there was a steady decline in oil imports.

■ ***The seeming reversal of supply, demand and import patterns since the price collapse of 1986 was really the acceleration of inevitable established trends.***

In 1986 the trends changed. Domestic supplies have declined throughout the last three years while demand has been rising. Both trends are continuing this year. Our import levels and import dependence have therefore risen substantially between 1985 and 1989. Net oil import dependency this year is likely to be 41% compared to 27% in 1985. There is much public concern and misunderstanding about this import dependency. A widely held assumption is that the oil price collapse of early 1986 caused the trend changes. The price collapse was certainly an important factor. However, it may just have expedited a trend that was already in the making rather than started a new one.

Oil demand for all major products other than residual fuel rose in each of the three years prior to the 1986 price collapse. Only the decline in residual fuel oil demand kept total oil demand from rising during this period. Since then residual fuel oil has joined the growth. But with demand for more than 90% of all oil products growing for the three years prior to the price collapse, the growth since 1986 is not a trend reversal but the acceleration of a trend in the making.

As to *supply*, Alaskan production has not really been affected by the price collapse. Lower-48 production was affected but most pre-1986 forecasts, including the DOE's, predicted its decline from the late 1980's on, even under price scenarios in the \$25-30 range. So here again, the price collapse merely expedited a trend in the offing.

■ *In mapping our National Energy Strategy, therefore, we must accept increasing import dependency since it would take extremely aggressive market intervention to reverse it.*

I am calling attention to these developments to make the point that the rising gap between domestic oil production and consumption, which must be met by imports, is not just a function of the 1986 price collapse and could not be corrected by modest to moderate price increases; it is a structural trend that under realistic price assumptions will be neither reversed nor even arrested over the next 7-8 years. Thus, we will have to learn to live and cope with it and, hopefully, we will not adopt some illusory policy which would impose an arbitrary number, such as a 50% foreign oil dependency, as an absolute ceiling to our imports. If this Administration sets as a policy goal the reduction of our oil import dependency, or even just its maintenance at the current 40% level, it will be hoisted by its own petard. For under conditions of normal economic growth it can achieve such goals only through vigorous direct market intervention. Only a general economic recession is likely to reduce our import dependency without intervention. But the reduction would of course be reversed during the recovery period.

■ *Increasing import dependency requires that we vigilantly protect against the harm of an import disruption.*

If we do accept the reality that our import dependence will rise, we must maintain and expand our protection against a foreign oil supply disruption. A disruption is the biggest risk we face as a consequence of our growing import dependence. It is a far larger risk than a sustained sharp price increase imposed on the world by OPEC. Our principal protective device is of course our Strategic Petroleum Reserve. At 573 million barrels and a sustainable draw-down rate of 4.5 million b/d over a 4-month period, it has become a major instrument in protecting us from the potential consequences of a disruption. Evidently, as our imports rise so must our SPR, if we want to maintain it at our chosen level of 90 days of net imports. Currently it is about 10% below that level. We should also consider the possibility of putting some of our SPR into finished products, particularly since our products imports are rising along with our crude imports. Since it may be difficult to obtain the necessary up-front financing for an expanded SPR, the DOE should continue to examine the possibility of leasing incremental volumes from foreign suppliers.

In the international arena we must at all times coordinate our emergency oil plan with those of other IEA members. We must be sure that when we draw down our SPR to reduce our import requirements they take similar action and do not carry on business as usual. The International Energy Agency is of course the organization through which these policies should be coordinated.

Another strategy for the international arena could be encouragement of the diversification of foreign supply sources by U.S. companies. The more widespread the sources of foreign oil supply the less risky is our dependence on foreign oil. Tax incentives might be an instrument to implement such a policy.

- ***Regarding domestic crude oil production, while the downward trend cannot be arrested between now and the second half of the 1990's, it can be decelerated by appropriate government action.***

Tax incentives--some new, some restored--for exploration and development activities would stimulate efforts. The Administration has recently proposed a package. However, in assessing any proposed incentives, it is important to bear in mind that the incentives should not be designed so as to help only independents, needy as this segment of the industry may be. The major oil companies drill only a small proportion of domestic oil and gas wells but regularly find a large proportion of the reserves of both fuels. Their upstream efforts are therefore critical to the U.S. reserve position.

Another contribution towards slowing down the decline in domestic production is to *open frontier areas, such as ANWR, and undeveloped coastal offshore areas to exploratory drilling*. Currently, oil producers and environmental advocates are on a collision course on this issue. While the environmentalists' view must of course be taken seriously, the industry's arguments for drilling in these areas cannot be dismissed as just commercial greed. It is in the national interest, economically and strategically, to find and produce all the domestic oil and gas obtainable at prevailing prices. If the argument against producing from these areas had won out 14 or 15 years ago, current U.S. crude production would be nearly 30% lower and our oil imports nearly 30% higher, not to speak of the lost federal and state tax and royalty payments generated by this production. Furthermore, the required additional import volume would almost certainly have been large enough to raise the world price of oil, thereby raising the cost of U.S. imports.

- ***Evolving environmental priorities are now intertwined with desired energy goals, and may dictate additional measures to dampen demand.***

On the demand side a national energy strategy will now inevitably have to be synchronized with the national environmental strategy. U.S. energy policy has favored a reduction in oil consumption since the mid-1970's to help curb our growing import dependency. When oil prices were high it did not require much coaxing or intervention by the government to achieve this. However, under the price conditions of the last five years a continuation of this trend would have required massive government intervention. With prices low, supplies plentiful and our import dependence still substantially below that of most other industrial nations, an active policy to reduce oil consumption as a national security measure is politically difficult to enforce or even to justify. However, a mandated reduction in consumption as an anti air-pollution measure may be politically more acceptable and perhaps more justifiable in terms of the public welfare. There is clearly more public concern at present about the environment than about energy security.

To the extent to which the reduction in oil consumption is the result of more efficient utilization it is a positive development for the economy, the environment and energy security. However, to the extent to which the reduction is brought about by fuel switching this may not always be the case. Thus, switching from gasoline to methanol could increase our import dependence since most methanol would probably have to be imported and since its BTU content is only about 60% that of gasoline; more methanol than gasoline is required for the same task.

In the electric power sector the demand for low-sulfur residual fuel oil, which would have risen in any case in the 1990's, may well rise faster as a result of the contemplated new measures to reduce acid rain. Much will depend on how soon clean coal technology becomes commercial and what happens to the nuclear options for electric power generation. Demand for electric power will keep growing for the foreseeable future. If coal and nuclear power are excluded from supplying the fuels for this growth, oil and gas will have to fill the gap.

This last point underscores the interdependence of environmental and energy policies and the need for an integrated approach in developing a national energy policy.

■ ***The government has a continuing critical role in research and development.***

The petroleum industry spends about \$1 billion per year for exploration and production research and development, according to a 1988 study of the National Petroleum Council. The federal government spends about \$500 million, about 20% from DOE. Enhanced oil recovery, a major outgrowth of these research efforts, now accounts for 600,000 barrels per day of production; the NPC estimated that additional efforts would bring the EOR production to 1 million barrels daily. Geoscience research is noted as particularly important in the coming years.

The DOE's research efforts have been credited with the development of Low-E glass, energy efficient ballasts for fluorescents, and other innovations which affect daily energy consumption, but may not have been developed privately given the declining cost of energy. The DOE's national laboratories have an impressive reputation. The NPC recommended that academic multidisciplinary studies be encouraged and increased; government funding could play a role here as well. In this time of price uncertainty, when private companies cannot justify the economics of pure research, the government can assume one of its most fundamental functions: to engage in activities which the private sector may not find economically attractive but whose ultimate benefits to all of society could be substantial.