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Energy Independence

In his energy message of 7 November, President Nixon asked for a commitment to a new national endeavor called Project Independence. This would have as its goal "that, by the end of this decade, we will have developed the potential to meet our own energy needs without depending on any foreign . . . energy source."

In Washington, presidential messages come and go. Some lead to the enactment of legislation. Others are forgotten. This one could be decisive. Even before the new Middle East conflict, it was obvious that the United States would have to alter its energy policies. The Arab boycotts created the kind of political climate that makes drastic measures inevitable.

In a first reading, the President's goal seems clear. However, a little reflection uncovers questions. What forms of energy will we be using in 1980? Two or three decades from now, we may be able to depend on the sun, or on nuclear energy. However, if we are to function in 1980, we will be living much as we are today, depending on hydrocarbons for most of our energy. A second question has to do with the significance of "by the end of this decade, we will have developed the potential . . . ." There is a long road between developing the potential to meet a need and actually meeting it. One would hope that the President intended to convey the idea that we would have productive plants in existence which could meet our needs if an emergency dictated. That is to say, that in 1980 we might be importing, for example, 20 percent of our hydrocarbons, but that we could live with a sudden curtailment. A third and perhaps necessary ambiguity is in the phrase "energy needs." Who knows what the public will demand in 1980? It is to be hoped that society will be willing to practice conservation and that we will be driving smaller automobiles and implementing a host of energy-saving measures. In addition, it should be possible to replace most oil currently being used in power plants by coal; by 1980, methods should be perfected for removing sulfur dioxide and other pollutants.

Until recently, we were importing 6 million barrels of oil a day. Given unchecked growth, that might have risen to 20 million barrels per day by 1980. Assuming energy conservation and moderate growth, we should be thinking in terms of developing an additional domestic production capacity of about 10 million barrels of oil a day. By tapping the continental shelves and bringing oil from the North Slope of Alaska, we might be able to increase production by 5 million barrels a day. Accordingly, a minimum goal should be the capacity to produce 5 million barrels of liquid hydrocarbons a day from coal or shale. That would involve an investment on the order of $50 billion and the product would cost $5 and more a barrel—about the same as imports now. But costs to foreign producers are as little as $0.25 per barrel, and later they may well engage in price-cutting. If industry is to participate as it should in the development of liquid hydrocarbons from coal and shale, a guaranteed market and price must be provided, preferably after competitive bids.

Getting oil from shale and coal presents tremendous problems. It is easy to cook hydrocarbons out of shale by using retorts, but the environmental problem of disposing of the residue is dreadful. Multimillion-dollar research devoted to getting oil from coal has been promising, but it has essentially proved only one thing—the practical problems of maintaining the effectiveness of hydrogenation catalysts are frustrating.

If we are to achieve anything like energy independence by 1980, we must be prepared to back a number of competing and parallel approaches, and we must not underestimate the cost or the difficulties of the task.—PHILIP H. ABELSON