Synfuels in Haste, Repent at Leisure

Congress prepares moonshot-style program to make oil from coal: So why is the coal industry yawning?

A moonshot-style technical venture which could cost several times more than did the Apollo program seems likely to emerge in the next few weeks as Congress's response to the national energy situation.

Synfuels fever has hit Capitol Hill. On 26 June the House passed a bill committing the government to purchase 500,000 barrels a day of synthetic fuels by 1985 and 2 million barrels a day by 1990. The aim is to reduce reliance on imports, now running at 8.5 million barrels a day.

Building the plants to satisfy even the first production target could cost the taxpayer from $18 to $22 billion, the Congressional Budget Office estimates. An even more ambitious synfuels program is being pushed by Senator Henry Jackson in a bill already endorsed by 14 of the 19 members of his energy committee. One section of the bill authorizes nearly $5 billion for constructing 15 synthetic fuel demonstration plants. The full costs of the bill have not yet been estimated, but even supporters concede that they would be colossal.

Synfuels are the liquid and gaseous fuels that can be derived in a variety of forms from solid fossil fuels such as coal, oil shale, and tar sands. A handful of small commercial plants produce (synthetic) natural gas from coal in the United States, but so far the only liquid fuel plant operating on a commercial scale is the Sasol 1 plant in South Africa.

Congress's newfound passion for synfuels is viewed by energy analysts with a spectrum of emotions that runs from qualified enthusiasm to outright dismay. What is remarkable is that the coal industry, which should be the leading beneficiary of any crash synfuels program, has serious doubts as to whether Congress's various schemes will do more good than harm in making synfuels commercially viable. A confidential review prepared on 18 June by the staff of the National Coal Association suggests that the bills under consideration "may do little to speed up the commercialization of coal gasification or liquefaction. This evaluation does not square with either the professed desire of many members of Congress to move ahead with Synfuels or widespread perception in Washington that the legislative proposals are major steps forward—with great benefit to the coal industry. Thus, any position taken by the coal industry that doesn't square with popular wisdom may be difficult to explain."

Congress certainly believes it is doing the coal industry a big favor. Speakers in the House debate last month referred to America's commanding position in owning one third of the world's known supply of coal. "We could be the Middle East of the world in coal," proclaimed House majority leader Jim Wright of Texas, a leading instigator of Congress's backing of synfuels. Why then are the coal analysts so lukewarm about having Congress pump billions of dollars into their industry?

The problem lies not with synfuels but with Congress. The spur for action comes not from any deeply considered perception of the energy situation but from OPEC price rises and constituents' complaints about gas lines. Having done little about energy this year except reject the President's conservation and rationing plans, Congress wants urgently to be seen as taking positive action of some kind. "The American people are in the mood to do something, even if it is wrong," Senator Dale Bumpers, a supporter of the Jackson bill, said at a news briefing last month.

For the last 7 years, synfuels have been an idea whose time has never quite come. Somehow or other, the estimated price at which synfuels would become competitive with oil has steadily risen, always dancing a few dollars above the current world price of oil. In 1973, when crude was $3.50 a barrel, the cost of making oil from shale was reckoned at $4.50. With crude up to $17 before last month's OPEC price hike, synfuel oil from shale was estimated by the Department of Energy to cost up to $25 a barrel, and oil from coal even higher.

Uncertainty about the long-term price advantage of synfuels over crude is presumably one reason why the oil companies—which own 20 percent of the coal in the United States—continue to show so little interest in building synfuel plants. According to a study done by the Census Bureau for the National Science Foundation, private industry spending for research and development in synfuel production amounted to only $201 million in 1978, whereas $7.8 billion of private money was spent the previous year in exploring for oil and gas in the United States.

Exxon, which recently laid out more than $1 billion to buy an electric motor firm, is moving slowly on coal liquefaction, and then only with the help of Department of Energy contracts. "If these proposed plants are still regarded as lemons in the eyes of the private sector, it does not follow that they merit subsidies from the government," observed Richard Corrigan in the *National Journal*.

The Office of Management and Budget evidently shares the oil companies' judgeent that synfuels' hour has not yet come. It slashed the fiscal year 1980 budget request for all synfuel projects down to $285 million—$70 million less than in 1979. Congress considered synfuels in 1975, when the House killed a Senate proposal authorizing $6 billion in loan guarantees; similar legislation failed by a one-vote margin in the House in 1976.

Up until 7 May 1979, when the second National Energy Plan was sent to Congress, the Administration's policy toward synfuels was to support a group of demonstration projects so that significant capacity could be built by private industry when oil prices rose high enough. Synthetic liquids, the energy plan predicted, would not make a significant contribution to national supply until 2000, when they would produce from 300,000 to 1 million barrels a day.

But at a breakfast meeting on 21 June with congressional leaders, Carter was persuaded to lend his support in principle to the Moorhead bill, a legislative sleeper which had suddenly come to life. The bill takes the arcane form of an amendment to the Defense Production Act of 1950. Its purpose is to guarantee a market for 500,000 barrels a day of synthetic fuels by requiring the Department of Defense to purchase that much by 1985. It passed the House by a margin of

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368 to 25, including an amendment from Jim Wright—adopted by voice vote—which raised the production target to 2 million barrels a day by 1990.

In the mind of its sponsor, Representative William S. Moorhead of Pennsylvania, a major purpose of the bill is "to send a message" to the world that the United States is resolved to stand up against OPEC by increasing its energy supply. "We have had enough blackmail and extortion threats, we are fed up with our apparent inability or unwillingness to do something meaningful. And we are not about to go the way of ancient Rome," Moorhead explained in introducing his proposal to the House.

For those in desperate straits, synfuels are a technically viable option. The Sasol 1 plant in South Africa already produces 10 percent of the country's liquid fuel needs from coal. A work force of 20,000 is struggling to complete a second plant, the $1.2 billion Sasol 2, by 1981, and work has already been started on the $3.8 billion Sasol 3, to come on stream in 1982. The three plants will provide 47 percent of the country's current oil consumption. The contractor for Sasol 2 and 3 is the Fluor corporation of Irvine, California. The cost of production is classified information, but South African sources suggest that it is as low as $25 a barrel.

The United States, however, has a broader range of choices than South Africa. Critics of Congress's approach to synfuels believe a crash program to produce synfuels offers numerous opportunities for disaster. "People want action, but let's have action that doesn't involve shooting ourselves in the foot," says one synfuels expert. In his view, more demonstration plants need to be built before launching into mass production of synfuels: "The basic fact of the matter is that we don't know if shale oil costs $15 or $30 a barrel, if coal oils cost $35 or $50. Before you make major commitments you need to know where you are at."

Administration officials are willing to yield to the congressional penchant for synfuels to the extent of increasing the Department of Energy's synfuel plant demonstration program from two to perhaps five or ten plants, but they hope to avoid getting into any crash production program. "The stuff coming out of Congress is uncoordinated and not very well thought out, but nevertheless reflects an obvious groundswell of public feeling, and we have to do something more dramatic," says an Administration energy expert.

Outside Washington, however, some energy analysts believe strongly that development of synfuels should be left almost entirely to the private sector, and that the government's most useful contribution would be to stop interfering in the market mechanisms which otherwise would bring synfuels on stream in an orderly and efficient way. For the last several years U.S. energy policy has been to keep the domestic price of energy well below the world level. The policy has stimulated energy demand, discouraged domestic production, and in the process has had the effect of subsidizing oil imports from OPEC. Of the 8.5 million barrels a day imported by the United States, no less than 5 to 6 million are directly attributable to the low price policy, according to MIT energy analysts Paul L. Joskow and Robert S. Pindyck. They object to the Department of Energy's synfuels commercialization program because "offering government subsidies of one form or another to developers of new energy forms means requiring the nation to pay much more for energy than is necessary. This is exactly what government policy should avoid."

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New York consultant Irwin Stelzer is another economist who opposes government subsidies for synfuel plants. Regardless of how much capital is needed, the market will find the money if it sees the profit there but not otherwise: "That's what economics does. It stops projects that nobody wants to pay for," he told the *Energy Daily*.

The reason why the coal industry is so lukewarm about Congress's synfuel visions is really that it perceives Congress as acting from motives of panic and political grandstanding rather than serious analysis. What will happen when the summer gas lines shrink and Congress recovers from synfuels fever? With the atmosphere of crisis past, Congress might not be willing to pass the further appropriations necessary to complete the projects. Such uncertainty about congressional resolve is unlikely to encourage investors. Even the possibility of government involvement can retard ventures by private industry, notes a staff review prepared for the National Coal Association, because private investors may not wish to assume the risk if there is any chance of the government doing so for them.

The review, a private report to the board of the National Coal Association, suggests three possible postures that coal producers should take toward the bill designed to make America the Middle East of the world in coal. One course is to oppose the Moorhead bill outright on various grounds including that it "involves the government excessively in synfuels and may even be counterproductive," as well as distracting Congress's attention from actions needed to permit increased coal use. A second course is to "explain why the bill provides little if any help," and a third is to support the bill "on the grounds that it is intended to be supportive of synfuels in general and possibly synfuels from coal, and may provide some new encouragement."

The review offers similarly underwhelming endorsement for the Jackson bill in the Senate, suggesting that the board of the National Coal Association either support selectively the bill's sensible provisions, if any, or else oppose the bill on the grounds that "many of its features have little or no promise."

In supporting synfuels Congress has its eye on national security as much as anything, and its fears are partly shared within the Administration. Synfuels could not help energy supplies for several years, but a crash program is seen by some as a signal of national resolve to deal with the energy problem. "OPEC takes our threats about synfuel production far more seriously than what we say about conservation," explains one Administration analyst. Others view the possible contribution of synfuels to national security as beside the point, since for its own security, let alone that of its more oil-dependent allies, the United States could not allow Middle Eastern resources to fall into the wrong hands: "We are not planning to abandon Western Europe and Japan just yet," says a congressional aide opposed to the synfuels proposals.

For congressmen, a crash synfuels program offers many temptations: thousands of new jobs, the appearance of dramatic action, no unpopular decisions. But the government has to appear credible in what it does, particularly to the private investors whom it wishes to help launch a synfuels industry, and to foreign observers. The problem is that credibility comes with making hard choices, and a moonshot-style synfuels program, at least in the forms Congress is now considering, could be just too easy.

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