

# Report of the Committee on Synthetic Fuels

## I. INTRODUCTION: THE FEDERAL SYNTHETIC FUELS PROGRAM

There is a long history of federal flirtation with synfuels. After an initial period of infatuation, things have normally cooled fairly rapidly and completely. There were those who were saying that this story would be repeated during the past year as oil prices declined, as major corporations lost interest in synfuels, and as the new management of the key federal player, the U.S. Synthetic Fuels Corporation (the "Corporation" or the "SFC"), expressed serious reservations about pressing ahead with the mandate to help develop a national synfuels industry.<sup>1</sup>

However, the sense in Washington now is that this time the government-industry relationship may stabilize and a good portion of the latest federal synfuels initiative may well remain in place. There is continued, though cautious, industry interest in the area, and considerable synfuels investments continue to be made. Oil prices appear to be firming and technological improvements are continuing in synfuels processes, helping to stabilize and, in some cases, improve the economics of proposed projects. The Corporation's management seems to have gone through what skeptics might call a typical Washington "capture," in that they are demonstrating increased interest in the functions assigned to them by the Congress under the Energy Security Act of 1980.<sup>2</sup> So far, the sniping at the synfuels program which has taken place in the Congress and among various public and private agencies during the past year, has remained just that.

The coming year could well tell the story of this latest installment of the ongoing synfuels affair. The Association's Synthetic Fuels Committee will remain in contact with the major participants, both inside and outside of the government, and looks forward to an active year in tracking and analyzing this portion of the alternative energy front.

## II. THE LEGISLATION

The underlying legislation in the field of federal activities in synfuels is the Energy Security Act.<sup>3</sup> Title I of the Act created the SFC as the focal point of the federal effort<sup>4</sup> and provided an \$88 billion program to foster the development of a domestic synthetic fuels industry. The SFC is an "independent federal

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<sup>1</sup>Statement of Edward E. Noble Before the Subcomm. on Fossil and Synthetic Fuels of the Comm. on Energy and Commerce, July 9, 1981, at 2; see also Statement of Edward E. Noble Before the Senate Comm. on Energy and Natural Resources, May 13, 1981, at 4 ("the private sector should take the next step"); Statement by Edward E. Noble Before the Subcomm. on Energy Development and Applications and Subcomm. on Investigations and Oversight of the House Comm. on Science and Technology, July 27, 1981, at 2 ("We intend to use minimum government involvement and concentrate on durable and ultimately independently viable projects.").

<sup>2</sup>Pub. L. No. 96-294, 94 Stat. 611 (1980), 42 U.S.C. §§8701 *et seq.*

<sup>3</sup>The focus of the Committee's interests (and the discussion here) is of "synthetic fuels" as defined in §112(17) of the Energy Security Act — primarily those liquid and gaseous fuels that (a) may serve as substitutes for crude oil, petroleum products and natural gas, and (b) are derived from coal, shale oil, tar sands, and heavy oil. The definition excludes such alternate fuels as biomass and alcohol fuels. Title II of the Energy Security Act concerns federal programs for the production of biomass energy and alcohol fuels, which are often included within a more general definition of the term "synthetic fuels."

<sup>4</sup>The Energy Security Act, Title I, Part B establishes the Corporation and defines its functions.

of a supplement to the initial solicitation, which established a two-phase process for evaluation and selection among competing proposals for Corporation assistance.<sup>17</sup>

During Phase I of the process, the SFC staff and Board reviews a proposal to determine whether it is sufficiently "mature" and has sufficient "strength" to be considered a viable project. This process requires that such matters as access to the necessary technology and resource base, project design and permitting be well in hand and that a project be able to demonstrate the existence of a potential market, adequate management capabilities and good prospects of the necessary private investment. Board approval is required before a project can pass either of these Phase I milestones. Approved projects then advance to Phase II which involves, first, a much more detailed assessment of the project proposal, and then (Phase IIB) negotiations with project sponsors on terms and conditions of financial assistance.

### *C. Corporation Solicitations*

At the same meeting which adopted the project evaluation criteria, the SFC Board also approved a plan under which three additional, similar solicitations were to be issued. The first of these has already closed (June 1, 1982).<sup>18</sup> The third and fourth are projected to follow at six-month intervals. In addition to this projected sequence of general solicitations, the Corporation is authorized to issue specific solicitations covering particular technologies or resources, and management has shown a continuing interest in this possibility.<sup>19</sup>

Projects which do not successfully pass one of the milestones in the evaluation process are eligible for consideration under succeeding solicitations. In several instances, projects which were not successful in the first solicitation have resubmitted their proposals to the Corporation under the second solicitation, addressing particularly those areas in which they were initially found to be deficient.

The four solicitations are basically "general purpose" solicitations covering all qualified resources and technologies. In the evaluation and review process of the proposals which are received under these solicitations, the Corporation takes a somewhat passive attitude, testing the applicant's proposal against the applicable criteria and guidelines. Applications are divided into resource classes and are competitively evaluated within the class; further, all applicants to the SFC are considered to be on a competitive basis with each other.

## IV. THE CURRENT SITUATION

### *A. Legislative Proposals*

During the current session of the Congress, five bills affecting the Corporation have been introduced. Three of these provide for the abolition of the SFC

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<sup>17</sup>46 Fed. Reg. 62353 (Dec. 23, 1981).

<sup>18</sup>46 Fed. Reg. 62353 (Dec. 23, 1981).

<sup>19</sup>Energy Security Act §§126, 127.

and two expand the Corporation's authorities. There has been no Committee action on any of the bills.

Specifically, a bill introduced by Congressman Glickman (Kansas) adds biomass projects to those eligible for SFC support.<sup>20</sup> A bill by Congressman Oberstar (Minnesota) adds municipal waste-to-energy projects and district heating and cooling projects to the eligible list.<sup>21</sup>

Bills introduced by Congressman Brown (Colorado) and Senators Armstrong (Colorado) and Proxmire (Wisconsin) abolish the Corporation.<sup>22</sup> A bill by Congressman Corcoran (Illinois) would both abolish the Corporation and reassign some of its resources to programs for low-income assistance and housing industry support.<sup>23</sup>

### *B. SFC Policy Development*

At its most recent meeting, the SFC Board received a briefing from staff offering advice on the programmatic options available to the Corporation to carry out its mandated objectives.<sup>24</sup> The basic thrust of the staff report was that the Corporation should concentrate on coal and oil shale as the major synfuels resource bases, supporting the establishment of a few plants in each sector as a start toward building the national synfuels production capability. The staff viewed peat, coal-liquid mixtures, hydrogen via electrolysis, and magnetohydrodynamics (MHD) as unlikely to contribute much to the Corporation's initial programs and indicated doubt about the contribution to be made by the tar sands/heavy oil resource base.

While the Board made no decision on the staff report, it does reflect an ongoing internal process of defining the Corporation's objectives and methods. This is being pursued for two interrelated reasons. The first is to provide a coherent rationale for short-term SFC activities and for the establishment of priorities among competing proposals currently pending before the Corporation. The second is to provide a foundation for the required "comprehensive strategy" report to the Congress.

This policy development process is an important factor to be considered by applicants in dealing with the Corporation. It points in the direction of potential decisions that the Corporation focus its attention and activities in certain technology and resource areas (and correspondingly decrease its attention to other areas). Applicants to the SFC will be well-advised to consider the extent to which their project relates to areas of developing interest on the part of the Corporation. Such elements of a project proposal should receive appropriate emphasis in its preparation and presentation.

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<sup>20</sup>HR 5441, 97th Cong., 2nd Sess. (1982).

<sup>21</sup>HR 5833, 97th Cong., 2nd Sess. (1982).

<sup>22</sup>HR 5404, 97th Cong., 2nd Sess. (1982) and S 2362, 97th Cong., 2nd Sess. (1982).

<sup>23</sup>HR 5977, 97th Cong., 2nd Sess. (1982). In addition, Congressman Corcoran and Congressman Evans (Delaware) sought to amend HR 5922, an FY 1982 supplemental appropriations bill, to transfer \$1 billion in SFC resources to a program to support the housing industry. The House voted 240 - 158 against allowing this and other possible amendments to be offered. *See* Cong. Rec. H 1866 (1982).

<sup>24</sup>*See*, U. S. Synthetic Fuels Corporation, "Staff Presentation to the Board on Diversity and Programmatic Strategy Options," June 17, 1982.

### C. Existing Projects

On June 17, the Synfuels Corporation Board of Directors met in Washington and, among other actions, approved the Hampshire Coal-to-Gasoline Project in Gilette, Wyoming, and the Breckenridge Coal-to-Liquid Project in Breckenridge, Kentucky, for advancement to the final step of the solicitation/selection process under the initial solicitation.<sup>25</sup> These are the only remaining projects of the initial 66 proposals to make it to this stage. Action on one other project, the Memphis Light, Gas and Water Coal-Gasification Project proposal, was "deferred" until the next meeting of the Board.<sup>26</sup>

There are still significant questions remaining to be answered regarding both the Hampshire and Breckenridge projects and it is unclear at this point whether and on what schedule they will advance to the stage of entering into contracts with the Corporation. Until they do, the "synthetic fuels industry," so far as the participation of the federal government is involved, comprises two projects which are currently under construction.

One is the Union Oil Company Shale Oil Project in Colorado, which received funding under the Defense Production Act, and which has subsequently been transferred to the Corporation.<sup>27</sup> The project is, in its initial stage, designed to yield 10,000 barrels per day of product. The government's participation is in the form of a purchase agreement/price guarantee involving a maximum liability of \$400 million.

The other project is the Great Plains Coal Gasification Project.<sup>28</sup> This project will produce 125,000 Mcf a day of high-Btu gas from 22,000 tons of North Dakota lignite coal. The contract was signed January 29, 1982. The government's participation is in the form of a loan guarantee of \$2.02 billion issued by the Department of Energy under the Nonnuclear Act. This project continues to be administered by the Department of Energy.

During the year, a third major project in which the federal government was a participant experienced what might be called a major change in direction. On August 6, 1981, the Department of Energy signed a loan guarantee agreement under the Defense Production Act providing \$1.112 billion to support the participation of Tosco Corporation in the Colony Project, a partnership with Exxon for the development of oil shale in western Colorado. Exxon subsequently announced its intention not to proceed with the project as planned. Following this announcement, the Tosco interest in the project was transferred to Exxon and the federal commitment was terminated.<sup>29</sup> The future of the Colony project is in question at the moment; indications are that Exxon is rethinking its corporate strategy in synthetic fuels. In any event, there is no longer any direct federal involvement in the project.

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<sup>25</sup>See, Report on the Meeting of the Board of Directors, United States Synthetic Fuels Corporation, June 17, 1982. These projects are sponsored respectively by Kaneb Services, Inc., Koppers Company, Inc., Metropolitan Life Insurance Company, Northwestern Mutual Life Insurance Company and SOHIO (not requesting SFC assistance) and by Ashland Oil and Bechtel Petroleum, Inc.

<sup>26</sup>Currently scheduled for July 15, 1982.

<sup>27</sup>Sponsored by Union Oil Company of California; contract signed on July 29, 1981.

<sup>28</sup>The project partnership consists of subsidiaries of American Natural Resources Company (33% lead participant), Transco Companies, Inc. (22%), Tenneco, Inc. (30%) and MidCon Corporation (15%).

<sup>29</sup>Resolution of the Board of Directors of the Synthetic Fuels Corporation, June 14, 1982.

#### *D. Pending Projects*

The Synthetic Fuels Corporation now has before it 33 projects under the second solicitation. Two of these are projects dropped from further consideration under the first solicitation at the June 17 meeting of the Board of Directors. The balance (including several projects dropped earlier in the evaluation process under the first solicitation) are those of the applicant under the second solicitation remaining after the Board dropped 6 second round projects which it considered to be clearly unsuitable for further consideration.

The applicant projects are widely distributed geographically and in terms of both resource base and technology.<sup>30</sup> One interesting feature of the list of applications is the fact that very few of the nation's major energy production companies are involved. In those cases where a major company is participating in a project being proposed to the Corporation, such as the Pacific Oil Shale Project in Garfield County, Colorado, which involves SOHIO, many such companies are not requesting SFC support for their share in the project. Under the present ground-rules, it is difficult to see how very many of these pending synthetic fuels projects will be able to satisfy the rigorous standards being imposed by the Corporation in its evaluation process.

#### V. CONCLUSION

Although there is still no major pressure to terminate the present federal program for synthetic fuels development, there is, at this point in time, still very little in the way of concrete results flowing from the enactment of the Energy Security Act and the establishment of the Synthetic Fuels Corporation. At present, the nation's synfuels industry is comprised of two major projects in which the federal government is a participant, a number of smaller projects representing private sector investments and a broad diversity of proposals and projects under development by the private sector, some of which are now pending before the Corporation.

The SFC appears to be reasonably well-established and has developed the necessary basic staffing, operating procedures and guidelines. It is in the process of defining its major policies and objectives and determining how active a role it should take in encouraging the development of the industry.

The open question, and the Committee's major focus during the coming year, will be whether a national synfuels industry does begin to take shape and the extent of the participation in that effort requested from (and offered by) the SFC.

J. William W. Harsch, Chairman  
Daniel E. Gibson, Vice Chairman

Allan W. Anderson, Jr.	Jeffrey D. Komarow
Frederic G. Benner, Jr.	John N. Nassikas
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Howard C. Davenport	Joel F. Zipp
John A. Howell	

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<sup>30</sup>See, News Release, U.S. Synthetic Fuels Corporation, June 18, 1982, which includes a listing "Projects Under Consideration In Second Solicitation."