



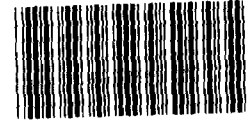
COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON D.C. 20548

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MARCH 6, 1982



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President of the Senate and the
Speaker of the House of Representatives

Subject: Status of the Great Plains Coal Gasification Project
Loan Guarantee--February 1982 (EMD-82-55)

This report is in response to the Department of Energy Act of 1978--Civilian Applications (P.L. 95-238, Feb. 25, 1978) which requires the Comptroller General to audit, every 6 months from date of enactment, recipients of loan guarantees issued under the act. The Department of Energy (DOE) awarded its first loan guarantee under the act to the Great Plains Gasification Associates (Great Plains) on January 29, 1982, for a coal gasification plant, a pipeline connecting the plant to the interstate pipeline network, and a share of the mine which will provide lignite coal to the plant.

The Federal Government is both the guarantor and the lending institution for the project. Funds for construction and startup of the facilities are being provided by the Department of the Treasury's Federal Financing Bank (FFB).

This report discusses several key provisions of DOE's loan guarantee and DOE's plans as of February 19, 1982, to monitor the project. Documents related to the final loan and guarantee were not available until the January 29, 1982, signing. In view of the limited time between the signing and the legislatively mandated date for this report, the report is informational in nature. It is based on interviews with DOE and industry officials associated with the project. It is also based on a review of publications, studies, DOE reports related to the loan and guarantee, and the loan and guarantee agreements themselves. We did not verify the cost or construction status information provided by DOE and project officials. The review was conducted in accordance with GAO's current "Standards for Audit of Governmental Organizations, Programs, Activities, and Functions."

PROJECT DESCRIPTION

The Great Plains coal gasification plant now being built in Mercer County, North Dakota, will be the Nation's first commercial plant for generating synthetic natural gas from coal. Initial

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design of the plant started in 1973. After years of negotiations, Great Plains started site preparation for the plant in 1980 and plans to complete most construction and begin initial gas production during November 1983, with full gas production scheduled for December 1984. ^{1/} The plant will have a production capacity of 125 million cubic feet of high-Btu (British thermal unit) gas, equivalent to about 22,000 barrels of oil per day. The synthetic gas is a direct substitute for natural gas and will be marketed through an interstate network of gas pipelines. A coal mine operated by Coteau Properties Company, ^{2/} which is adjacent to the plant site, will supply about 14,000 tons per day of lignite to the plant through surface mining.

The estimated cost of the project is about \$2.76 billion. This includes \$1.85 billion for construction of the gasification plant, adjacent coal mine, and pipeline; \$350 million for financing during construction; and about \$561 million for contingencies.

The project is owned by the Great Plains Gasification Associates, a partnership of four gas pipeline companies. These companies and the proportion of equity contributed by each to the partnership are:

	<u>Percent of total</u>
American Natural Resource Gasification Properties Company (Controlled by American Natural Resources (ANR))	32.5
Tenneco SNG, Inc. (Tenneco) (A subsidiary of Tenneco, Inc.)	30.0
Transco Coal Gas Company (Transco) (Controlled by Transco Companies, Inc.)	22.5
MCN Coal Gasification Company (MCN) (A subsidiary of MidCon Corporation, formerly Peoples Energy Corporation)	<u>15.0</u>
Total	<u>100.0</u>

Source: DOE's January 1982 loan guarantee agreement.

^{1/}For more information on the events leading up to the award of the loan guarantee for the Great Plains plant, see "Status of the Great Plains Gasification Plant," EMD-81-64, Mar. 16, 1981.

^{2/}Coteau Properties Company is a subsidiary of North American Coal Corporation.

Day-to-day management of project construction, startup activities, and operations will be carried out by ANG Coal Gasification Company (ANG), Detroit, Michigan, a subsidiary of American Natural Resources Company.

The project's January 1982 Construction Schedule and Progress Summary shows that as of January 31, 1982, plant construction was about 9 percent complete. This percentage is based on a composite of 33 types of construction activities and compares with a composite of 8 percent expected to be completed by this date. Construction of access roads and other activities considered a part of "off-site" development is about 94 percent complete. However, construction of the core of the facility including the building and equipment used in gasifying coal is about 4 percent complete. Other construction activities such as piping and electrical work are also partially completed. ANG's Manager for Cost Engineering and Scheduling Project Controls informed us that construction work is continuing at the site throughout the winter and spring months.

As of January 31, 1982, construction activities related to development of the coal mine were about 37 percent complete. However, construction of the plant's pipeline has not started. Great Plains officials are examining alternative routes for the pipeline, including a 40-mile route to the Northern Border interstate pipeline and a 365-mile route to the Great Lakes Gas Transmission Company's pipeline. They expect to decide by April 1982 which of the routes will be used.

According to ANG's Controller, about \$262 million had been spent on the project through the end of January 1982.

TERMS OF LOAN AND LOAN GUARANTEE

The amount of Federal funds provided under the loan, collateral for the loan, procedures for disbursement and repayment of funds, and other related issues such as equity, mortgage, licenses, and patents are set forth in the loan guarantee and 12 associated documents. According to these documents, the amount of the loan guarantee will depend on actual project expenses but cannot exceed \$2.02 billion for the plant, coal mine, pipeline, debt related expenses, and contingencies. DOE agreed to guarantee 75 percent of the project's costs plus 50 percent of a secondary contingency for unanticipated cost overruns. The four partners involved in the project agreed to contribute up to \$740 million of their own equity to the project. The following table shows a breakdown of the project costs, guaranteed debt, partners' equity, and contingencies.

	<u>Total</u>	Guaranteed <u>debt</u>	<u>Equity</u>
	----- (millions) -----		
Plant expenditures	\$1,549	\$1,162	\$387
Coal mine costs	155	116	39
Pipeline	146	110	36
Debt related expenses	349	262	87
Management reserve and pipeline contingency	361	270	91
Secondary contingency	<u>200</u>	<u>100</u>	<u>100</u>
Total	<u>\$2,760</u>	<u>\$2,020</u>	<u>\$740</u>

Source: Department of Energy.

Project assets and the stock of the project administrator, ANG, are collateral for all loans issued under the guarantee. DOE has first rights to all assets including land and buildings, as well as contract rights, patents, insurance, technology, and inventions. ANG's stock has been pledged to Citibank N.A., and will become the property of DOE should default occur or the project be terminated. The parent corporations of the Great Plains partners are liable for up to \$740 million.

Disbursements of funds will be made by the FFE after DCE approves Great Plains' periodic requests. Great Plains will provide DOE a quarterly estimate of funds needed for the project. However, Great Plains can request disbursements as often as every week. DCE officials expect to receive weekly requests for funds primarily during periods of intense construction activities, such as during the summer months when weather conditions are favorable. Each disbursement request will be a projection of Federal funds needed prior to the next scheduled disbursement date. DOE's Chicago Operations Office will review and approve the request based on construction, cost, and financial reports submitted by project officials. DOE will then notify the FFE of the approved request, and the FFE will disburse the funds to the project.

Each disbursement to Great Plains can be considered a separate loan. During the construction period, Great Plains has the option of requesting short-term loans with maturity from 45 days to 1 year or long-term loans extending up to 20 years. When startup operations are completed and the plant is at full production, all loans will be consolidated into one or more long-term loans. On February 18, 1982, the interest rate on a 90-day Treasury note was 14.38 percent. This compares to 14.32 percent for a 20-year security.

As of February 19, 1982, the FFB had issued a 60-day loan for \$58 million to the project's sponsors and a 133-day loan for \$7 million. Interest rates to Great Plains on these loans were about 14.2 percent and 16.5 percent, respectively. These interest rates include a one-eighth of 1-percent FFB lending fee and a three-fourths of 1-percent loan premium. In addition, Great Plains pays a 1-percent guarantee fee to DOE at the time of each disbursement.

The three-fourths of 1-percent premium represents a charge to Great Plains for options within the loan agreement which would allow Great Plains to repay the loan ahead of schedule. According to DOE officials, although FFB loans do not normally provide for early retirement, it is not uncommon for private lenders to include such provisions in commercial loans.

DOE'S PROJECT MONITORING ACTIVITIES

DOE officials told us they intend to closely monitor construction and operation of the Great Plains project. The primary purpose in monitoring the project's activities is to ensure control and proper release of Government funds during project design and construction. A secondary purpose is to identify lessons learned during plant construction and operation which might improve the effectiveness of other research and development projects.

DCE's Office of Coal Processing, Office of the Assistant Secretary for Fossil Energy, is responsible for these monitoring activities. According to a December 22, 1981, draft outlining procedures for monitoring the project, the Office of Coal Processing has tentatively delegated responsibility to DOE's Chicago Operations Office for the day-to-day monitoring of the project. The Operations Office will perform all business management and administration activities associated with the project, including certifying the reasonableness of the periodic requests for Government funds. DOE now plans to have its Grand Forks and Morgantown Energy Technology Centers assist the Operations Office by monitoring the design, construction, and technical operations of gasification-related equipment and systems. DOE expects to finalize its plans for overseeing the project during March 1982.

According to DOE's manager for the Great Plains project, DCE has assigned five persons on a full-time basis at the Chicago Operations Office to review project requests for Federal funds, monthly and quarterly reports, and other information submitted by Great Plains. An additional five persons are available on a part-time basis at the Operations Office to review environmental, socioeconomic, and technical information related to the project. In total, this staff will spend an equivalent of about 8 staff years during fiscal year 1982 to oversee the project.

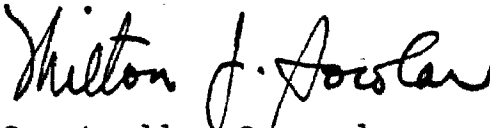
DOE plans to assign two people full-time from the Grand Forks Energy Technology Center to monitor construction. Staff from Morgantown Energy Technology Center will be available on an as needed basis. However, DOE is considering the option of closing and consolidating its technology centers. It is uncertain how DOE would revise its monitoring plan should it decide to close one or both of these centers.

About 3 staff years are available at DOE headquarters offices to review periodic reports submitted by Chicago Operations Office and the technology centers.

DOE expects the first monthly report on the project's costs, construction status, and project assets on March 30, 1982, and the first quarterly summary report on work-in-progress on April 30, 1982. We plan to comment further on DOE's monitoring procedures and project status in subsequent reports.

In order to meet the time frames of the legislative requirement, we did not obtain official agency comments.

Copies of this report are being sent to the Director, Office of Management and Budget and the Secretary of Energy.

for 
Comptroller General
of the United States