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UNITED STATES GENERAL ACCOUNTING OFFICE  
Washington, D.C. 20548

FOR RELEASE ON DELIVERY  
Expected at 10 a.m.  
Tuesday, October 18, 1983

STATEMENT OF  
DANIEL C. WHITE  
ASSOCIATE DIRECTOR, RESOURCES, COMMUNITY,  
AND ECONOMIC DEVELOPMENT DIVISION  
BEFORE THE  
SUBCOMMITTEE ON ENVIRONMENT, ENERGY,  
AND NATURAL RESOURCES  
HOUSE GOVERNMENT OPERATIONS COMMITTEE  
ON  
ECONOMICS OF THE GREAT PLAINS COAL GASIFICATION PROJECT



Mr. Chairman and Members of the Subcommittee:

We welcome the opportunity to discuss our recent report to you on the economics of the Great Plains coal gasification project<sup>1</sup> and the impact of the Department of Energy's (DOE's) recently revised energy price estimates on the project's economic viability.

On January 29, 1982, the Secretary of Energy awarded a loan guarantee for up to \$2.02 billion of the originally estimated \$2.76 billion construction costs to Great Plains Gasification Associates--a partnership of five companies--to construct the Nation's first commercial-scale plant producing synthetic gas from coal. The Department of the Treasury's Federal Financing Bank agreed to lend Great Plains the \$2.02 billion DOE agreed to guarantee, with Great Plains financing the remaining costs from its own funds or equity. Great Plains currently estimates that

<sup>1</sup>Economics of the Great Plains Coal Gasification Project (GAO/RCED-83-210, Aug. 24, 1983). In addition, our semiannual report--Status of the Great Plains Coal Gasification Project--Summer 1983 (GAO/RCED-83-212, Sept. 20, 1983)--includes a detailed discussion of Great Plains' cash-flow report.

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it will borrow about \$1.5 billion and the partners will contribute about \$517 million to construct the project.

The loan agreement requires that Great Plains annually submit to DOE an estimated cash-flow report demonstrating both its ability to repay the guaranteed debt and the project's profitability. The project's first cash-flow report, submitted to DOE in March 1983, was less optimistic than a similar analysis prepared in January 1982 when the loan agreement was signed.

The 1983 analysis showed much lower net income, more years of losses, and substantially reduced payback of funds to the partners. The major reason for these changes was that the energy price estimates which Great Plains used to determine the selling price of its synthetic gas were significantly lower than those Great Plains had used earlier. The price at which Great Plains can sell its gas is not fixed but will be controlled by a pricing formula which sets certain maximum prices that Great Plains can charge. These prices are highly dependent on future oil and natural gas prices. In estimating these future prices, Great Plains relied on pricing data provided by DOE. DOE generally shows a low, mid, and high range of such prices. Great Plains based its March analysis on DOE's then current mid-case range.

In its March 1983 analysis, Great Plains estimated that --the project would experience operating losses during each of the first 8 years compared with 3 years projected earlier,

--the partners will not fully recover the \$517 million in equity they contributed for 16 years, compared with 9 years projected earlier, and

--the partners would have to provide \$841 million in no-interest loans for the first 8 years compared to the January 1982 estimate of \$86 million for 3 years.

Before discussing our analysis of Great Plains' March cash-flow report and the potential effects of recent DOE draft energy price estimates on the project's profitability, I would like to emphasize two important points. First, projections of future energy prices are very sensitive to international political events and domestic policy changes. Second, Great Plains' economic analyses extend beyond the year 2000. The application of these projections for 20 years into the future and the uncertainties and instability of energy prices overall, increase the speculative nature of any analysis related to this project.

In its March analysis, Great Plains did not consider tax implications. Although the Great Plains partners do not directly receive tax benefits, their parent companies do to the extent they are profitable enough to take full advantage of them.

When taxes are considered, we found that the economic viability of the project could be more positive than Great Plains estimated. During construction, three types of tax benefits are available to the parent companies. I would like to point out that these benefits--investment tax credits, energy tax credits, and interest deductions--would be the same for any company involved in a similar project. Our analysis showed that these benefits could reduce the parent companies' combined tax liability by \$400 million based on equity contributions of \$517 million during construction. The remaining equity (\$117 million) would be fully recovered within 2 years after the start of plant operations. The

parent companies have been eligible to take advantage of these benefits since 1981. However, most of these benefits would have to be repaid to the Department of the Treasury in the event Great Plains ended its participation.

Tax benefits are also available after the project becomes operational. Any project losses that are incurred might be used to offset the parent companies' profits for tax purposes. At the current marginal corporate tax rate, the parent companies' combined tax liability could be reduced by as much as 46 percent of the losses incurred. As stated earlier, Great Plains' March analysis showed that the partners would have to put in \$841 million in the project during the first 8 years it operates. During this same time period, however, the parent companies' tax liability could be reduced by \$922 million. Again, the parent companies would have to repay some of the tax benefits previously taken if Great Plains ended its participation.

Although the project is a potentially attractive investment over the long term, its ultimate financial success is extremely sensitive to future energy prices. Our analysis of Great Plains' March data using the mid-case range showed that, although there would be some years when the partners would not realize a return on their investment, over the first 20 years the plant operates the partners could realize an average annual 20-percent return on their investment. However, when we increased the selling price of the synthetic gas over Great Plains' March analysis by 3 percent compounded annually, we found that the partners could realize an average annual return of 27 percent. Conversely, a 3-percent annual decrease compounded would result in a negative 1.3-percent return over the first 20 years.

## SUBSEQUENT EVENTS

In September 1983, after we issued our report, DOE released updated draft energy price estimates and Great Plains filed an application for price guarantees with the U. S. Synthetic Fuels Corporation. You requested that we analyze the impact of both the September prices and the Corporation's price guarantees on the project's economics.

Chart 1 shows the impact of DOE's September 1983 price ranges (low, mid, and high) and our analysis of Great Plains' March mid-case projections. In analyzing the impact of the September 1983 energy price ranges, we used the same assumptions we used previously and Great Plains' methodology for calculating gas prices. As you can see, if energy price trends move toward DOE's current high estimate, the project's profitability would be better than we previously reported. If energy prices move toward the lower end of DOE's projections, then the project is projected to have a negative return. To provide a different perspective, it might be helpful to look at the price of a barrel of oil. Currently the cost is about \$29 per barrel. DOE in March 1983 projected that the mid-case selling price for oil would be \$26.71 per barrel in 1985 and in September 1983 projected \$25.90 per barrel in 1985. As you can see, even small changes in the price of oil can have considerable impact on the total project. This further illustrates my earlier point that the project is extremely sensitive to oil price changes.

On September 13, 1983, Great Plains filed an application with the U.S. Synthetic Fuels Corporation for price guarantees because it believed that the lower oil and gas price projections create a

serious financial risk for the project sponsors. Great Plains proposes price guarantees for the period 1986 through 1996. It also proposes a profit-sharing arrangement whereby it would pay the Corporation an equitable portion of cash distributions in the event energy prices are higher than anticipated.

Because the U.S. Synthetic Fuels Corporation has not decided whether it will negotiate with Great Plains and because the guaranteed price Great Plains is seeking has been designated "confidential" by the company, we were unable to analyze the impact of the Corporation's price guarantees on the project's profitability. We have, however, conducted sensitivity analyses using assumed gas prices for the period 1986-1996--the same time period in which Great Plains is seeking financial assistance. Using the September mid-case projections, Great Plains' gas selling price would be \$6.96 in 1986. Since, by definition, price guarantees would be more than the estimated selling price, we assumed a \$7.00, \$7.75, and \$8.50 per million Btu gas price for the project beginning in 1986. We escalated these prices using Great Plains' inflation factors. This analysis shows that, if Great Plains were to negotiate a price guarantee comparable to these assumed prices, the project's profitability over the first 20 years the plant operates would be greater than what Great Plains' projected in March 1983.

This concludes my prepared statement, Mr. Chairman. I would be pleased to answer any questions you and members of the Subcommittee may have.

CHART 1

IMPACT ON GREAT PLAINS' ECONOMICS OF DOE'S SEPTEMBER 1983  
ENERGY PRICE RANGES

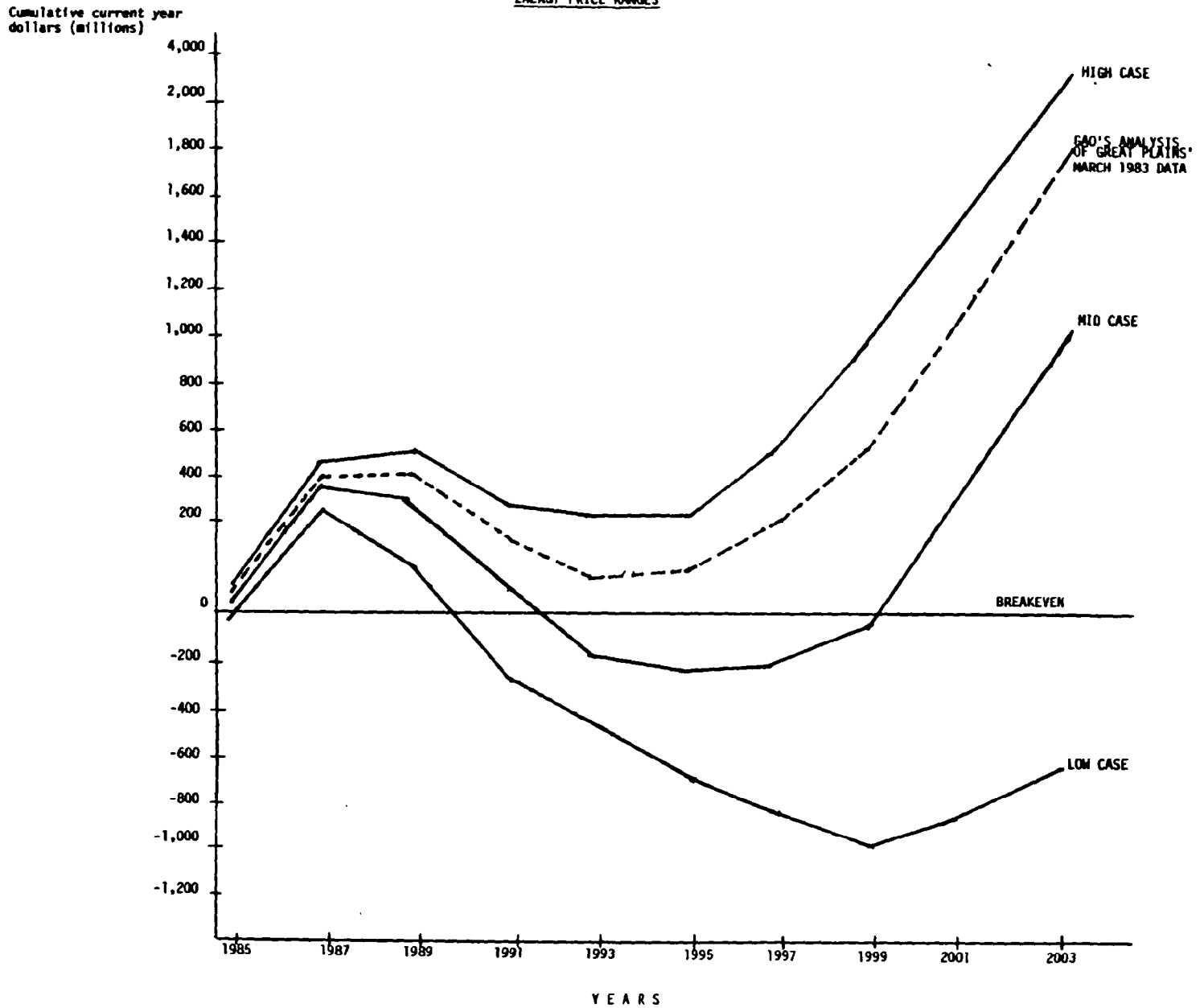


CHART 2

IMPACT ON GREAT PLAINS' ECONOMICS OF  
VARYING GAS PRICES BETWEEN 1986-1996

Cumulative current year  
dollars (millions)

