

Statement of

RUDOLPH G. PENNER
Director

Congressional Budget Office

Before the

Committee on Energy and Natural Resources

United States Senate

September 22, 1983

Mr. Chairman, I am pleased to appear before you today to discuss the proposed financing plan for the Clinch River Breeder Reactor. The staff of the Congressional Budget Office (CBO) has analyzed the financial implications of this plan for the federal government. Our analysis deals only with alternative financing options, and does not address the value of the project itself or the decision about whether it should be completed.

Our analysis focuses on two basic options: on the one hand, the private financing plan developed by the Breeder Reactor Corporation (BRC) Task Force and endorsed by the Administration; and, on the other hand, an alternative that I will call the "government-financed" plan. The latter assumes:

- o No additional private sector contributions, other than the \$175 million already committed by public utilities;
- o Federal funding of an additional \$2.3 billion in construction costs;
- o Continued government operation of the reactor through the year 2020, and sales of power at market rates throughout the period; and

- o Completion of the project at the same cost and at the same time as assumed for the BRC private financing plan.

This government-financed alternative differs from the current arrangements governing the Clinch River project only in that it assumes continued operation past the first five years, and the sale of power produced by the reactor at market rates throughout the period. This would demand a change in the current contractual agreements, which require the Tennessee Valley Authority (TVA) to buy the power produced by the reactor for the first five years at "avoided energy costs." This restriction could, at the discretion of the Congress, be maintained or removed regardless of which financing plan is selected. Therefore, in comparing the two basic alternatives, the same power sales were assumed for both.

Our analysis also assumes that the Tennessee Valley Authority would not exercise its option to purchase the reactor after five years of operation. In view of its projections of excess capacity, the TVA has indicated that it would probably not acquire the plant.

Under these assumptions, the BRC plan would reduce federal budget deficits between 1984 and 1990 by close to \$700 million, but would add \$2.6 billion to the deficit over the following 30 years, as compared with the government-financed alternative. Thus, the budgetary effect of the BRC

plan is to reduce deficits in the early years at a cost of larger deficits in later years.

Because the value to the government of receiving a dollar in the future is less than the value of receiving the same dollar now, an evaluation of this trade-off requires a discounting of future outlays and revenues to put all cash flows on an equivalent basis, regardless of the year in which they occur. When discounted, at the after-tax cost of federal borrowing, the cost of the private plan is almost \$250 million more than if the Congress chose to fully fund the project. This indicates that the short-term savings from the BRC plan do not offset the higher costs to the government over the life of the reactor.

The higher cost of the private plan reflects the fact that the government would be borrowing funds from the private sector and paying a guaranteed rate of return higher than normal government borrowing costs.

Under the BRC plan, assuming \$150 million in equity participation, our base-case assumptions imply that the after-tax rate of return earned by the equity investors would be about 37 percent, while the after-tax rate of return for bondholders would be 7.5 percent. The difference between these rates and the government's assumed after-tax discount rate of about 6.75 percent accounts for the higher long-term cost to the government of the BRC plan.

The exact tax treatment of the equity investment under the BRC plan is somewhat uncertain, and will depend upon legislation or rulings by the Internal Revenue Service. Our analysis assumes treatment favorable to the investors--specifically, depreciation taken over five years and the expensing of construction interest. If, instead, we were to assume that the project is depreciated over ten years and that construction interest is capitalized, the estimated rate of return to the equity investors would be about 23 percent, which is approximately what the financial community has indicated would be necessary to attract investment capital. The rate of return could also be reduced below 37 percent if the plan attracts more than \$150 million in equity participation. For example, with an equity investment of \$300 million, the rate of return to the investors would be about 14 percent. To the extent that the return to the equity investors is below 37 percent, the cost of the BRC plan to the government would be reduced. It should be stressed, however, that as long as returns to the equity and bond holders exceed the government's discount rate, the BRC plan will cost the government more than the government-financed alternative.

Our analysis is based on an assessment of the tax benefits that private investors would receive under the BRC plan from the investment tax credit and from depreciation and interest deductions. We have also estimated taxes the investors would pay on their income from the project. The results have been tested under varying assumptions about the tax treatment of the

private investors, the amount of income from the sale of electricity, and the discount rate used in the analysis. The cost of the BRC plan is lower than that of the government-financed plan under only one of the scenarios analyzed. That scenario assumes that, with government financing, power would be sold at a below-market price to the Tennessee Valley Authority for the first five years of the reactor's operation, as specified in current agreements. On the other hand, it assumes that power sales under the private plan would be at a market price. It is not apparent, however, why the restriction on power sales should necessarily be maintained in one case, but not in the other. Therefore, the choice of financing mechanism should not be affected by this assumption.

In sum, the CBO analysis indicates that, if the government is to proceed with the Clinch River Breeder Reactor Project, direct appropriation of the necessary additional construction funds would be more economical to the government in the long term than the BRC's private financing plan.

Mr. Chairman, this concludes my statement this morning. More detail on this analysis appears in the Staff Working Paper that we have provided to this Committee. I will be happy to answer any questions you or members of the Committee may have.