UNITED STATES GENERAL ACCOUNTING OFFICE

WASHINGTON, D.C. 20548

~~21637~~
118216

ENERGY AND MINERALS DIVISION

April 27, 1982

B-207121

118216

The Honorable Hank Brown
House of Representatives

Dear Mr. Brown:

Subject: Information on the Request for the Western Area Power Administration to Sell Some Transmission Lines (EMD-82-76)

As you requested, we reviewed the Platte River Power Authority's (PRPA's) proposal to purchase certain Western Area Power Administration (WAPA) transmission lines. To date, the proposal has been denied. We recently briefed your staff on this matter and, at your request, are providing the results of that briefing in this letter.

BACKGROUND

WAPA is a Federal electric power marketing agency with a service area of about 1.3 million square miles in 15 Central and Western States. It sells power to over 460 wholesale power customers who service millions of retail customers within the 15 State area. WAPA also operates and maintains about 16,000 miles of high voltage transmission lines, over 200 substations, and various power facilities.

PRPA buys most of its power from WAPA and constructs, operates, and maintains electric generating plants, transmission systems, and related services for four municipalities in northern Colorado--Fort Collins, Loveland, Longmont, and Estes Park. Its predecessor was formed in 1966 as a non-profit corporation and was reconstituted in 1975 as a political subdivision of Colorado. PRPA fulfills its power and energy requirements through:

1. A contract with WAPA which provides most of PRPA's power needs.

2. An 18-percent share in the electric power from its joint ownership in the Yampa Project (coal plant) near Craig, Colorado.

8

(005261)

3. Generating facilities that were owned by three of the municipalities at the time PRPA was reconstituted. These systems provided less than 1 percent of PRPA's energy needs during the 12-month period ended February 1981.

In the spring of 1981, PRPA proposed acquiring certain WAPA transmission lines at fair market value.

OBJECTIVES, SCOPE, AND METHODOLOGY

Our objectives were to answer the following questions:

--Why does PRPA want to purchase certain WAPA transmission lines?

--What are the precedents for sales of transmission lines by Federal power marketing agencies?

--How is the PRPA situation related to the precedents?

We obtained correspondence on these matters from WAPA headquarters in Golden, Colorado, and the Loveland-Fort Collins area office; PRPA personnel; representatives of two of WAPA's preference customers in the area of the proposed sale; the Tri-State Generation and Transmission Association (Tri-State); and the Northeast Plains Power Association. To determine why PRPA wants to purchase WAPA transmission lines, we interviewed officials of WAPA, PRPA, Tri-State, and the Northeast Plains Power Association. We also obtained and reviewed information on a previous WAPA sale and a proposed transmission line sale by the Southwestern Power Administration and compared the proposed purchase by PRPA for similarities and differences. We analyzed the positions of the officials of these organizations and examined related correspondence. We performed our review in accordance with GAO's current "Standards for Audit of Governmental Organizations, Programs, Activities, and Functions." We did not make a detailed analysis of PRPA's or WAPA's position on the sale of these lines. The following sections discuss the answers to the three questions.

WHY PRPA WANTS TO PURCHASE SOME WAPA TRANSMISSION LINES

PRPA has expressed several reasons for its desire to purchase a portion of WAPA's transmission line system. Among the more prominent reasons are PRPA's desire to use the WAPA lines for future transmission capacity growth in its service area, and PRPA's desire to decrease an estimated 7-percent transmission loss that WAPA has forced it to absorb. If PRPA owned the lines, it would absorb actual losses rather than estimated line losses, which PRPA feel are too high.

The WAPA transmission system that directly serves PRPA includes about 130 miles of 115 kilovolt 1/ transmission lines connected to 164 megawatts 2/ of capacity on the Big Thompson River. These lines service only two preference customers--PRPA and Tri-State. WAPA has no specific plans to upgrade these lines at this time. However, the lines may need to be expanded sometime in the future as power requirements in the immediate area increase. PRPA believes the purchase of these lines would be a reasonable way to expand the transmission capacity that will be needed to serve its customers at some time in the future.

PRPA also believes that it has been required to absorb an inordinate amount of line losses, and the sale would free it from this burden. As is common, some electrical energy is lost in moving energy from generators to users through the transmission system. The magnitude of such losses is a function of the physical characteristics of the system and the amount of energy in the system. Although it is not possible to determine precisely the impact of any individual energy transaction, it is possible to calculate the difference between total generation and total sales over a period of time. WAPA has traditionally used 7 percent as a loss factor for contract purposes based on calculations for its total system. PRPA believes that the physical characteristics of its share in the system and its particular use of the system is such that its contribution to systemwide losses is less than 7 percent. Accordingly, PRPA believes that requiring it to absorb a 7-percent loss is unfair.

PRPA requested that a consulting firm 3/ evaluate WAPA's 7 percent transmission loss assessment to it as well as other items. The consulting firm reported in November 1980 that PRPA could save $69,811,000 during the 12-year period 1984 through 1995 by (1) entering an agreement with the Public Service Company of Colorado to replace WAPA as the system regulator and (2) providing metering equipment to allow for billing based on actual line losses rather than WAPA's 7 percent estimate. The estimated cost for metering was $650,000.

PRPA entered an agreement with Public Service Company of Colorado (an investor owned utility) in March 1981. This agreement provided that Public Service Company would act as the generation and interconnection dispatching agent, and PRPA would act as

---

1/A kilovolt equals 1,000 volts.

2/Megawatt is the electrical unit of power which equals 1 million watts or 1,000 kilowatts.

3/R. W. Beck and Associates--a national engineering and consulting firm.

the transmission line and substation dispatching agent. This agreement was amended in June 1981 to specify that the parties would no longer assert any right to or exercise operational control over any of the U.S.-owned or Tri-State owned transmission facilities.

During March through June 1981, PRPA proposed purchasing the WAPA transmission lines as a means to expand transmission capacity and to remove U.S. owned lines from the control of U.S. power operators. WAPA rejected PRPA's proposal to purchase the lines. WAPA officials stated that yielding control of this particular segment of WAPA's system would have a significant local impact and believed there would soon be no integrated Federal system if each entity with Federal lines in its service area assumed control.

In addition, other preference customers in the service area strongly opposed the sale. Tri-State and the Northeast Plains Power Association passed resolutions opposing the sale of the lines to PRPA. Tri-State officials said PRPA would not provide a definitive agreement on power service over the WAPA lines if they were sold, and they needed more than verbal assurances that they would be adequately served.

A Northeast Plains official said he feared the sale would be the first step to dismantling the Federal power supply system, and that such a sale would begin the degradation of the entire Federal system. He stated that there had been numerous examples of private companies refusing to wheel power to municipalities in other parts of the Nation, and the municipalities had to sue to get the power delivered. He said he feared a similar situation could occur with Northeast Plains, if PRPA were allowed to buy and control the WAPA lines.

PRECEDENTS FOR FEDERAL POWER MARKETING AGENCY SALES OF TRANSMISSION LINES

Although Federal power marketing agency sales of portions of their transmission systems are not common, there are some precedents for such sales. For example, in 1978 WAPA sold a section of its transmission system in New Mexico to the section's primary customer. In addition, the Southwestern Power Administration (SWPA) has 17 percent of its entire system currently for sale in western Oklahoma. Neither WAPA nor SWPA considered these portions of their transmission lines as vital to systemwide integration of their facilities.

WAPA sold a deteriorated transmission line system to reduce operating costs

Between 1940 and 1952 WAPA's predecessor, the Bureau of Reclamation, built a 449-mile section of the Rio Grande transmission system in New Mexico. The system, however, had deteriorated over time and was in need of substantial and costly repairs. In fact, the Rio Grande Project had operated for years at a deficit, and a portion of that deficit was directly allocable to the deteriorated transmission facilities. In addition, Reclamation studies showed the local prevailing power rates were insufficient to supply enough revenue to permit the system to be appropriately repaired.

In 1974, Reclamation began negotiations to sell the Rio Grande Project transmission system. Reclamation estimated that it could save $360,000 in operations and maintenance costs annually if it sold the line for $5 million. When WAPA replaced Reclamation as the power marketing agency for the Rio Grande Project in 1977, WAPA continued the sale negotiations. WAPA officials explained, however, that even at that time they did not favor the sale. They said that a minor upgrading of the lines and some short line construction would have allowed the line to be integrated into their entire system. WAPA officials agreed to continue the sale negotiation because the sale process had already progressed too far.

The Rio Grande Project lines were not connected to any other WAPA lines, and they served only two customers. When the sale was consummated, WAPA sold the lines to the Rio Grande Project transmission system's largest power customer. That customer had power loads that amounted to 90 percent of Project's transmission capacity. WAPA's contract for electric service to the purchaser provides that sufficient capacity will be reserved in the line to deliver WAPA's maximum contract commitment to the other customer.

SWPA wants to sell 17 percent of its transmission system

SWPA markets power from United States Army Corps of Engineers hydroelectric plants in Arkansas, Kansas, Louisiana, Missouri, Oklahoma, and Texas. Between 1951 and 1969 SWPA built the Western Oklahoma Loop to deliver wholesale electric power to preference customers in western Oklahoma. Currently, these facilities serve only one customer, an electric cooperative.

In August 1980 SWPA determined that although the 277-mile Western Oklahoma Loop represented about 17 percent of its transmission line systems, it no longer needed this portion of the system to service its customers, so SWPA declared the lines to be surplus to its needs. SWPA does not consider the Western Oklahoma Loop to be an integral of its transmission system, and the transmission lines are therefore unnecessary to SWPA. The system has been appraised, and negotiations should begin soon for its sale.

HOW PRECEDENTS DIFFER FROM THE PROPOSED SALE

There are differences between these examples and the proposed sale of WAPA transmission lines to PRPA. Both the prior WAPA sale and the proposed SWPA sale of transmission lines do not involve sales of integrated transmission systems. Agency officials described both transmission line systems as no longer necessary to meet customer power requirements.

In contrast, a WAPA official said that the transmission lines PRPA proposed to purchase are an integral part of WAPA's 16,000-mile transmission line system, and the subject lines permitted WAPA needed additional flexibility to integrate hydroelectric power sources with other generation sources. In addition, one of WAPA's customers, Tri-State, obtains power from the subject lines and has formally requested that the proposed sale not be completed.

Although WAPA officials said they did not believe the sale of the transmission lines was in the best interest of the Government, they did not rule out a possible sale of the subject lines or any other lines at some time in the future. They said that if at any time their power commitments for a line or line segment terminated and the line was not needed as a viable part of an integrated system, they would consider selling the line.

There are certain advantages to the Federal Government selling transmission lines. Sale of lines would provide funds for the Federal Treasury on a one-time basis, and it would provide a means for another organization to upgrade lines without the need to obtain WAPA approval or expend Federal funds.

- - - -

As agreed with your office, we did not obtain official comments on this report from WAPA or PRPA. We did discuss its contents with officials from both organizations. Copies of this report will be provided to the Senate and House Legislative and Appropriations Committees for WAPA; the Director, Office of

Management and Budget; the Secretary of Energy; and others on request. If we can be of any further assistance, please let us know.

Sincerely yours,

for J. Dexter Peach
Director