



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

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February 6, 1980

ENERGY AND MINERALS  
DIVISION

B-114858



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The Honorable Jim Weaver  
House of Representatives ~~615 0000~~

Dear Mr. Weaver:

Subject: [Administrative Feasibility of Two-Tiered <sup>Acc</sup>  
Pricing by the Bonneville Power Adminis-<sup>0465</sup>  
tration] (EMD-80-57)

Your September 13, 1979, letter requested that we assess the administrative feasibility of a "two-tier" rate structure for electric power marketed by the Bonneville Power Administration (BPA), as proposed in section 9(b) of H.R. 4159 and identify any utility that is using a tiered pricing system. The stated purpose of such a rate structure is to motivate electric utilities and power consumers to conserve electricity and develop renewable resources.

As agreed with your staff, we did not study power pricing methodologies in depth. Our efforts were essentially limited to an analysis of the two-tier concept and discussions with Bonneville officials. We also made some limited telephone contacts with utility officials in other areas of the United States.

In summary, we found that:

- There is general support, including support from Bonneville, for motivating electric utilities and retail customers to conserve power and to develop renewable energy sources.
- Tiered rate pricing would provide utility customers with more accurate price signals than they presently receive under Bonneville's "melded" rate.
- Tiered rate pricing can be made administratively workable at the wholesale level, but there are questions of application about what specific form such rates should take at the retail level in order to assure equity and effectiveness.

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Conceptual basis for a  
tiered rate structure

Bonneville sells power on a melded, or average cost basis. While the average generating cost (per kilowatt hour) of the existing facilities from which Bonneville markets power is 2.97 mills, individual plants range from 1.55 mills to 15.19 mills 1/. According to Bonneville's General Counsel, the statutory authority would need to be changed before Bonneville could market power on other than a melded basis.

A tiered rate structure would associate rate differences with cost differences for constructing and operating generating facilities. Tiered rates could be based on generating methods (e.g., hydro versus thermal) or on the date generating facilities came on line (e.g., all generating facilities in service before 1980 and all those placed in service between 1980 and 1990).

Proponents of tiered rates argue that (1) Bonneville's wholesale customers (utilities), if reminded of new power supply costs, will have an increased incentive to conserve energy and develop alternative resources and (2) the utilities' customers, if provided with more meaningful price signals in their power bills, will have an increased incentive to conserve power.

Application of a tiered  
rate structure

The specific proposal (section 9(b), H.R. 4159) would give the Administrator of Bonneville authority to establish a two-tiered rate structure for power supplied for the "general requirements" of eligible customers (mostly utilities), as shown in the 1978 long-term forecast.

Bonneville officials question whether providing power under a two-tiered rate structure based on the "general requirements" contained in a long-term forecast would be either equitable, or the most effective means to accomplish the intended objectives. They point out that this proposal relies heavily on forecasts and their accuracy. Consequently,

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1/Bonneville projected generation costs for 1980.

forecasting errors could provide utilities who over forecast with windfalls of lower rates, or penalize utilities which experience sudden unexpected increases in load.

To assure uniform forecasts and equitable allocations, Bonneville would need to adopt forecasting standards and assumptions, including procedures for validating the forecasts and defending them, both administratively and judicially. Bonneville has not previously required detailed information about the nature and composition of the loads of its customer utilities. Adopting a tiered rate structure for wholesale power sales, therefore, would place significant additional information and verification requirements on Bonneville.

While additional effort would be required, we see no reason why a tiered rate could not be made administratively workable at the wholesale level. Based upon the limited contacts made with utilities, we did find one instance where a tiered rate was in effect at the wholesale level. Effective in October 1979, the Power Authority of New York established a wholesale tiered rate for the sale of power to municipalities and rural cooperatives.

Passing price signals through  
to power customers

Bonneville officials are also concerned about whether a tiered rate will work at the retail level. To be effective at the retail level, the wholesale tiered-price signals must be passed through to retail customers. In this regard, section 9(c) of H.R. 4159 provides that the Bonneville Administrator shall:

"\* \* \* require by contract or otherwise that the resale rates of his utility customers directly reflect the two unmixed rates \* \* \*."

This provision is sufficiently broad that utilities would be given a great deal of latitude in developing their retail rates. In addition to the cost of power purchased from Bonneville, the utilities' retail rates involved many cost elements. Some utilities also generate power of their own, and all have distribution costs to recover. Utilities can assign those cost elements with considerable discretion among various customers or customer classes. Consequently, if a utility disagrees with the goals to be

achieved or with the mechanism of a tiered rate structure, it could reduce or mask the intended pricing signals. Bonneville officials believe that more research is needed to develop empirical data on what type of retail rate structure and what price levels have the best conservation effect.

Conclusions


A tiered rate structure is administratively workable at the wholesale level and precedent exists for establishing one. We support the concept of using realistic price signals to motivate utilities and power consumers to develop alternative resources and to conserve energy. While the overall power bill would not increase under tiered pricing, it would serve as a more accurate reminder to utilities of the cost of new generation than the melded rates under which Bonneville now sells power. Therefore, we believe that any doubt regarding Bonneville's statutory authority to market Federal power on other than a melded basis should be removed by legislation.

Also, the legislation should direct Bonneville, before its next rate filing, to identify and make recommendations to the Federal Energy Regulatory Commission for testing alternative retail rate structures and actions which would encourage conservation. Such tests could be conducted by Bonneville in conjunction with the cooperation of regional utilities that volunteer to make appropriate tests at the retail level.

One alternative that could be tested is to require, as a condition precedent to receiving power from the lower cost wholesale tier, the adoption of an "acceptable" conservation program. This program could require the adoption of a retail rate structure that encourages conservation.

We trust that the above is responsive to your inquiry.

Sincerely yours,

*for*   
J. Dexter Peach  
Director