BPA proposes to measure the marginal costs of actions it takes to: (1) Guarantee availability of energy; (2) guarantee a maximum rate of delivery of energy (demand); (3) provide energy at guaranteed prices; and (4) actually deliver energy. The results of the MCA are used to develop wholesale power rates that promote efficient development and operation of generation and conservation resources.

BPA proposes to measure marginal costs based on the conditions BPA faces in the interconnected West Coast wholesale power market. Estimated marginal costs are based on the results from a model that was developed to simulate future wholesale market transactions to aid in BPA's long-term power marketing and resource strategy decisions—the Power Marketing Decision Analysis Model (PMDAM). PMDAM projects the marginal costs that BPA will face when taking actions to serve its Pacific Northwest customers, at the least cost, under conditions of uncertainty. PMDAM uses information on the costs associated with acquiring and operating resources to meet load in conjunction with the costs associated with purchasing and/or selling power in the West Coast bulk power market.

The MCA provides estimates of BPA's marginal costs of supplying peaking demand on heavy load hours, and energy at different times. These estimates provide the basis for determining the generation component of BPA's demand charge. The estimates also provide the basis for the seasonal and hourly time-differentiation of energy charges, including the identification of time-periods in which different rates may apply and appropriate levels for rates in each time period relative to the others. These time periods consist of hours of the week when the marginal cost of power is high and those when it is relatively low, as well as seasons of the year when different marginal costs prevail. The results of the analysis suggest that BPA's rates be different for six seasons. The results also suggest that BPA's energy rates be differentiated between heavy and light load hours, which was not a feature of previous rate designs. The analysis does not include any quantitative estimate of marginal costs incurred on the transmission system.

E. Wholesale Power Rate Development Study (WPRDS)

BPA is proposing substantial changes in the method used to develop its wholesale power rates. BPA's wholesale power rate development is a two step process. First, BPA allocates the test period generation revenue requirements and then adjusts these results to reflect various rate design objectives and statutory requirements.

1. Allocation of BPA's Generation Revenue Requirements

BPA allocates the test year generation revenue requirements to customer classes based on the use of specific services by each customer class and the rate directives of the Northwest Power Act.

BPA is proposing to recognize three different categories of generation costs as part of its effort to unbundle generation services: peak demand, rights to energy, and delivered energy. Generation energy cost allocations reflect the relative use of services and resources needed to serve load. Costs recovered from the sales of peak demand and rights to energy products are treated as a credit against BPA's generation costs prior to allocating the generation revenue requirements.

2. Adjustments to Allocated Costs

The remaining steps in the rate design process use the allocated costs developed in the Cost of Service Analysis (COSA) and modify them to: (1) reflect BPA's rate design objectives; (2) conform with contractual requirements; (3) reflect the results of other BPA studies and commitments made in other public involvement processes under Section 7(i) of the Northwest Power Act; and (4) conform with requirements of applicable legislation. BPA's rate design objectives include recovery of BPA's revenue requirement, rate and revenue stability, practicality, fairness, and efficiency.

Major rate design adjustments to the allocated COSA costs include the following:

a. Excess Revenue Adjustment

In the initial cost allocation, BPA allocates its entire test period revenue requirement to firm power loads on the basis of resources available under critical water conditions. However, rates are set assuming BPA recovers nonfirm sales revenues equal to the expected value of revenues under 50 years of streamflows in the historical record. Because no generation costs are allocated to nonfirm energy (NF) service, the generation portion of forecasted NF revenues are credited against costs allocated to firm loads.

b. Surplus Firm Power Excess Revenue Adjustment

BPA has sold and expects to continue to sell surplus power under long-term contracts. Expected revenues from the sale of such power are compared to allocated costs. BPA expects revenues to exceed costs of this power, resulting in a credit to other customers.

c. 7(c)(2) Adjustment

The rates applicable to the DSIs are set according to the rate directives contained in Section 7(c) of the Northwest Power Act. In 1987, BPA adopted a methodology for setting the DSI rate known as the IP-PF (Industrial Firm Power-Priority Firm Power) rate link. The link is essentially a formula that quantifies the rate directives. The components of the formula are the typical margin, a character of service adjustment, a value of reserves credit, and an inflation adjustment. The link has been used to set rates since the 1987 rate case. However, it will expire with the expiration of the current VI rate contract on September 30, 1996, and cannot be used to set rates in this rate proceeding.

Therefore, BPA is recalculating the factors of the link. The first factor is the typical margin that BPA's preference customers include in their retail industrial rates. The second factor is the character of service adjustment that accounts for the fact that a portion of the DSI load is not served as firm on a planning basis. The third factor is the credit that reflects the value of reserves provided to BPA by its restriction rights on the DSI load. In this proposal an inflation adjustment is not included because its purpose in the current link is to escalate the other factors to each rate case so they do not have to be recalculated. It is not necessary to include an inflation adjustment because new values are being determined in this rate proceeding.

Using the factors described above, a DSI rate calculation is performed that links it to the preference customer rate. The revenues from this linked DSI rate are less than the costs initially allocated to the DSIs. The difference is called the ''7(c)(2) delta'' and is allocated to other power customers.

The foregoing list of rate design adjustments identifies some of the major cost adjustments and is not intended to be all-inclusive. As a final step in rate design, BPA develops seasonal and diurnally differentiated energy charges based on allocated costs and scaled based on the results of the MCA. The final step in the WPRDS is to combine the revenues projected for energy, capacity, rights to energy, and transmission. These total revenues by customer class are divided by the relevant billing determinants to calculate average rates.