

**DRAFT SEGMENTATION PROPOSAL
VOLTAGE-DIFFERENTIATED RATE**

**Proposed Voltage-Differentiated Rate for Transmission on BPA's Network Segment,
Depending Upon the Transformation Provided**

Proposals have been advanced to perform a functional test on BPA's facilities in order to segment them between BPA's Network and delivery segments. Such proposals are based on the functions the facilities perform and are generally supported by principles of cost causation. However, even if BPA does not adopt such a proposal, a voltage-differentiated rate for BPA's Network should be adopted because it would reflect different charges based on the cost of transformation services received from BPA and therefore it is better aligned with cost causation than BPA's current approach. Indeed, a voltage-differentiated Network rate could be applied even if the facilities assigned to the Network or delivery segments changed.

A. Description of Proposed Voltage-Differentiated Rate

1. Identify intertie, generation integration, delivery, ancillary service, and direct assignment facilities. (Any changes to BPA's methodologies for identifying facilities in these segments is beyond the scope of this particular proposal.)
2. Network segment facilities are those remaining transmission facilities not falling into the segments in item 1 above.
3. Develop a voltage-differentiated rate for transmission on BPA's Network segment, depending upon the transformation provided.
 - a. Determine the average depreciated cost of substation transformation facilities, differentiated by voltage class, on BPA's Network segment. Also, determine the average depreciated cost of lines and other, non-substation facilities, regardless of voltage, on BPA's Network segment.
 - b. The concept is to compute rates based on
 - (i) the average costs of voltage-differentiated substation facilities determined in item a. above, plus
 - (ii) the costs of non-voltage differentiated non-substation facilities on BPA's Network segment determined in item a. above.

- c. This results in transmission rates based on the service received with respect to transformation services and “postage stamp” rates with respect to other services. Each BPA customer served over the Network segment would pay costs consisting of
 - (i) a uniform, “postage stamp” charge for Network segment customers based on the cost of non-transformation facilities, plus
 - (ii) a voltage-differentiated charge for transformation based on the average cost of transformation facilities of the voltage levels used by the particular customer.

For example, rural and urban BPA transmission customers receiving deliveries of requirements power from BPA at delivery voltages at 34.5kV would all pay the same rate, regardless of location in the region.

- d. BPA customers would be able to redirect transmission regardless of the voltage at the redirected POD (perhaps a different approach for “permanent redirects”).
- e. Charging for average losses on BPA’s Network segment would continue, i.e., loss calculations would not change in the voltage-differentiated rate.
- f. This approach
 - (i) more closely aligns with cost causation because it reflects different charges based on the cost of transformation services received from BPA,
 - (ii) essentially treats customers using Network facilities at a given voltage the same regardless of their location within the region, and
 - (iii) should not be unduly complicated to implement.

BPA’s current IR 14, NT 14 and long-term PTP 14 rates are expressed in terms of dollars per kilowatt per month (\$/kW/mo). Under the voltage-differentiated rate proposal, there would be such a rate for each voltage class of facilities used on the Network used by the particular customer.

B. Analyze Proposed Change in Network Segment Rate, by Voltage Class, for BPA Transmission Customers.

After segmentation and to the extent practicable, limit the proposed average increase in the Network segment rate for any rate period for each voltage class (for example, the average rate increase for any voltage class is to be no more than 20%). Spread the cost of such limit pro rata to other Network segment rates, so that to the extent practicable no

such voltage class experiences an average Network segment rate increase greater than 20% (for example) for any rate period. This limit mitigates any “rate shock” that may otherwise occur.

C. Discussion of Voltage-Differentiated Rate Proposal in the Context of BPA’s “Proposed Segmentation Principles”

BPA has developed “BPA’s Final Segmentation Principles” dated March 20, 2014.¹ These BPA proposed principles are set forth below, together with some observations set forth in italics regarding the voltage-differentiated rate proposal in the context of those proposed principles.²

1. Consistent with statutory requirements

a. Full and timely cost recovery

The issue is not whether BPA will fully and timely recover its costs. The issue is which customers will pay for which facilities. This proposal attempts to provide a methodology that is relatively easy to implement while at the same time more closely aligning BPA’s rates with cost causation.

b. BPA’s rates are based on total system costs

Under the voltage-differentiated rate proposal, all of BPA’s Network segment costs are allocated to rates for users of such segment. BPA should achieve cost recovery of its total Network segment costs.

c. Equitable cost allocation between federal and non-federal uses of the Transmission system

Under the voltage-differentiated rate proposal, Network segment rates are more closely aligned with cost causation than an arbitrary 34.5kV segmentation test because they reflect different charges based on the cost of transformation services received from BPA. This is particularly appropriate in light of the fact that BPA’s lower-voltage Network facilities are used predominately to serve a subset of BPA’s

¹ These proposed principles are similar to the BPA proposed principles commented on in “Comments of Avista Corporation, Iberdrola Renewables, LLC, PacifiCorp, Portland General Electric Company, Public Utility District No. 1 of Benton County, Washington, and Puget Sound Energy, Inc. on January 28, 2014 BPA Segmentation Materials.”

² However, this discussion of BPA’s principles is not intended as an endorsement of such principles. See footnote 1 above. Further, such principles cannot and should not be applied in a BPA rate case itself, so as to supplant statutory requirements. For instance, “principles” cannot shift the burden of supporting BPA rates in a BPA rate proceeding to a BPA customer or require that a BPA customer presents in a BPA rate proceeding a comprehensive proposal in order to assert that certain costs should not be allocated to the rate for a particular BPA service. In this regard, for example, the Northwest Power Act section 7(i)(5) requires that the Administrator’s decision establishing rates “shall include a full and complete justification of the final rates”

transmission customers. The voltage-differentiated Network segment rate would apply to BPA customers regardless of whether Federal or non-Federal power is being transmitted, yet should be equitable insofar as it would better reflect cost causation and collect the cost of lower-voltage Network facilities from the subset of BPA Network customers that are served with such facilities.

- d. Encourages the widest possible diversified use of electric power at the lowest possible rates to consumers consistent with sound business principles

Under the voltage-differentiated rate proposal, Network segment rates are more closely aligned with cost causation because they include different charges based on the transformation services received from BPA. Such rates send a better price signal than a rate that is not voltage differentiated and are limited to collecting the Network segment revenue requirement—therefore, they should promote efficient transmission facility decisions and should be consistent with this principle. Indeed, BPA’s scan of industry practices indicates that about one-third of the utilities reviewed have voltage-differentiated rates.

2. Consistent with rate making principles

- a. Cost causation

Under the voltage-differentiated rate proposal, BPA’s Network segment rates more closely align with cost causation because they reflect different charges based on the cost of transformation services received from BPA.

- b. Simplicity, understandability, public acceptance and feasibility of application

Under the voltage-differentiated rate proposal, BPA’s Network segment rates reflect different charges based on the cost of transformation services received from BPA but are otherwise unchanged from BPA’s current Network segment rate structure.

The “BPA Segmentation Review Industry Practices Scan” dated January 2014 indicates that about a third of the roughly 100 utility systems analyzed have voltage-differentiated rates. In other words, the voltage-differentiated rate proposal has some precedent. However, it should be noted that BPA’s system seems relatively unique insofar as BPA’s lower-voltage Network facilities are used predominately to serve a subset of BPA’s transmission customers, while other BPA transmission customers—investor-owned utilities and larger preference agencies—provide their own lower-voltage

facilities. Because of this fact, the voltage-differentiated rate proposal is particularly appropriate for BPA's system.

c. Avoidance of rate shock

Under the voltage-differentiated rate proposal, mitigation of potential "rate shock" is addressed as discussed above.

d. Rate stability from rate period to rate period

Under the voltage-differentiated rate proposal, the transformation provided to a particular customer and the average cost of transformation facilities by voltage class on BPA's Network segment should be relatively stable, and the voltage-differentiated rate proposal should result in Network rates that are relatively stable from rate period to rate period.

3. Considers a regional perspective

- a. Alternatives include how costs are allocated and recovered
- b. BPA hopes that proponents of alternatives will explain how the region benefits from the alternative compared to status quo
- c. Historically BPA has applied uniform rates to achieve widest possible diversified use

Under the voltage-differentiated rate proposal, all Network segment costs are allocated to BPA Network segment rates and should therefore be recovered.

The voltage-differentiated rate proposal is superior to the status quo because it provides

- (i) *a uniform, "postage stamp" charge for Network segment customers based on the cost of non-transformation facilities, plus*
- (ii) *a voltage-differentiated charge for transformation based on the cost of transformation facilities of the voltage costs used by the particular customer (which thus is better aligned with cost causation).*

BPA has not always applied uniform rates,³ nor has it shown that uniform rates achieve the widest possible diversified use consistent with sound business principles.

³ See, e.g., BP-14-B-JP06-01, pp. 16-18.