

**Institutional Barrier #7
Better Price Signals**

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Problem Statement

Transmission prices do not provide appropriate incentive for transmission users to consider and pursue non-construction alternatives.

Current Situation

When a particular component of the transmission system is overloaded, we would like to see electricity users reducing or shifting their use of electricity, more generation at end-use customers' sites and generators locating closer to load and avoiding transmission over the overloaded component. But TBL's current transmission pricing system is designed primarily to recover the cost of the existing transmission system, and gives these parties little incentive to consider such actions. Without an incentive, construction of new transmission capacity is left as the only practical option.

Bonneville's current transmission pricing system has two customer categories:

A) For most customers, Bonneville's "Network Integration Transmission" (NT) service sets their monthly transmission bill based on their load at the time of Bonneville's transmission system peak, and based on the average cost of the existing system. This provides inefficient prices to customers for 2 reasons: 1) a system component may be at or approaching overload at hours different from the peak load of the system as a whole; and 2) the average cost of the existing system may be a poor approximation of the cost of building a new component.

B) For other customers (who account for most of the use of Bonneville's transmission system) Bonneville's Point to Point (PTP) service specifies a contract level of MW over a specified path. The customer pays a fee based on the contract MW as long as the customer doesn't exceed that MW level. If the customer exceeds the contract level it pays double the contract fee per MW, unless it can arrange to use part of another customer's contracted capacity. The customer sees a marginal price of using more transmission capacity of either twice the contract fee or the cost of acquiring short term rights to capacity from another transmission customer. This price will be inefficient if the actual cost to Bonneville of providing extra transmission service is more than twice the contract fee per MW, or if the market for short term transfers of transmission capacity between customers is uncompetitive.

A special case of Bonneville transmission customers, generators, are served as PTP customers and are charged at Bonneville's standard rate or the marginal cost for Bonneville to serve them, whichever is higher (the "or test"). This means that generators with high service costs receive efficient price signals. Other generators are charged

Bonneville's standard rate with an "Short Distance Discount" for point to point distances of less than 75 miles, which can reduce the rate by up to 40 per cent. However, this discount may not reflect the actual benefit a generator's location has for the transmission system, which depends on location relative to congestion, not absolute distance from load. As a result, generators whose location is especially helpful to the transmission system may not receive efficient price signals.

Goal

The goal is to design and introduce better price signals for transmission use.

- In the long run, a comprehensive dynamic pricing system that signals users the real time conditions of the transmission system would be ideal if practical difficulties can be overcome.
- In the short run, (by the next transmission rate case) a "tiered" demand charge for NT customers, with higher charges as peak demands approach the capacity of the stressed section of the current system, could provide those customers with more appropriate signals than they have now.
- An alternative to a tiered demand charge is an adder during hours when loads are high on the stressed section of the system, with day-ahead notice to customer utilities. This would be a form of "critical peak pricing".
- In the short run, a "tiered" contract fee for PTP customers could provide a better signal of the marginal cost of service than they have now. Customers who want to increase their contract capacity might pay a higher rate for the incremental capacity based on the cost to the transmission system of providing more capacity.
- In the short run, review of the penalty for using more than the contracted capacity for PTP customers may suggest a charge that better matches the actual cost to the transmission system of marginal service.
- Point to point transmission customers can currently exchange short term rights to contract capacity. If this exchange market is active and competitive it can provide price signals that complement price signals from Bonneville. Such a market could provide incentive to customers to reduce their use of transmission even if they have adequate contract rights, since they could receive payment from other customers for doing so.
- Price or other incentives for generators that locate where they impose low costs on the transmission system might influence generators' locational decisions.

Tasks

1. Evaluate dynamic transmission pricing

Task:

Who:

Due Date:

Dollars:

Partners:

2. Evaluate "tiered" demand charges for network customers

Task: Determine if one of the pilots can be used as a test for this tool and what level of demand charge would be appropriate.

Who:

Due Date:

Dollars:

Partners:

3. Evaluate “tiered” contract fees for point to point customers

Task: Determine if one of the pilots can be used as a test for this tool and what level of demand charge would be appropriate.

Who:

Due Date:

Dollars:

Partners:

4. Evaluate costs of above-contract use by point to point customers (penalties for UIC and exchange prices for short term rights to other customers’ contracts) -- how do they compare to marginal cost of service to the transmission system?

Task:

Who:

Due Date:

Dollars:

Partners:

5. Evaluate incentives for generators who locate close to load -- how much could the transmission system afford to credit them?

Task:

Who:

Due Date:

Dollars:

Partners:

6. Evaluate the potential of a buyback program (such as interruptible contracts) to reduce the use of stressed components of the transmission system during periods of extreme peaks.

Task: Determine whether a pilot program can be used as a test for this tool and what level of compensation would be required to attract significant participation.

Who:

Due Date:

Dollars:

Partners:

7. Evaluate critical peak pricing for transmission.

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Task: Can Bonneville include an adder for transmission service in hours when a section of the system is expected to be stressed? What level of adder would be appropriate and effective?

Who:

Due Date:

Dollars:

Partners:

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