

**Reference:** AESO Rate DTS POD Costs - Energy Component

**Preamble:** In the “Electric Transmission Operating and Maintenance Cost Study”, it states that with respect to the isolated communities that fuel costs avoid the need to extend the local system and POD.

**Request:**

- (a) Can the AESO confirm that the fuel costs for isolated generation are a substitute for Local and POD costs?
- (b) Can the AESO provide evidence that the fuel cost of running the isolated generation facilities is variable with the energy consumed on the overall AEIS?
- (c) If the fuel costs are a substitute for Local and POD costs, why are they not classified in the same manner as POD and Local costs?

**Response:**

- (a) The provision of electric service to remote loads can be achieved either by installing local generation at the load or by extending the electric transmission or distribution system. Therefore, the cost of providing service will result from either isolated generation or from the electric transmission (or distribution) system. If it becomes economic to extend the transmission or distribution system to provide service, then fuel costs will be replaced by costs of the electric transmission or distribution system, and from that perspective, one cost will substitute for another.
- (b) The cost of fuel associated with the operation of isolated generation is variable in proportion to the energy production (and consumption) in the area served by the isolated generation. The energy consumed in the remote community is physically not part of the load of the interconnected electric system, because the remote electric system is not connected to the larger Alberta transmission system. From a cost of service perspective, all costs are pooled (including those related to isolated generation) across the province. From a rates perspective, the ISO tariff applies to all loads (including load in isolated communities) across the province. The load served by the isolated generation is subject to the ISO tariff in accordance with section 3(b) of the *Isolated Generating Units and Customer Choice Regulation*.

Since the cost analysis in the *Transmission O&M Cost Study* is translated into rates, there will be an energy-related price signal in rates across the province that comes from the variable cost of isolated generation. That price signal, although small, should influence behaviour of electricity consumers across the province, including those in isolated communities. If the isolated generation costs were reclassified as demand-related or customer-related, there would be no price signal provided that would relate to the variable cost of isolated generation. Rather, a demand-related or customer-related

price signal would be provided that, if responded to in an isolated community, would be ineffective at reducing isolated generation costs as such costs are energy-related. Please refer to information response IPCAA.AESO-017 (c) for additional information.

- (c) The fuel costs are functionalized as local system and point of delivery costs since the loads in remote communities are too small to justify extending the bulk transmission system. When the transmission system is extended to provide service to a remote community, it is normally the lower-voltage transmission system (local system) that is extended to provide service.

The fuel costs are classified on the basis that costs are incurred. Since fuel costs vary in proportion to energy production (and consumption), the costs are classified as energy related. If these costs were classified as demand-related or customer-related, and assuming rates follow the cost of service classification, there would be no price signal to reduce energy consumption. The classification of energy-related costs sends the correct price signal, even if diluted.

**Reference:** AESO Rate DTS POD Function

**Preamble:** In the AESO rate presentation, it states that “Standard Facilities Definition” does not accurately reflect past practice. Specifically, two-thirds of all PODs are connected through two or more lines, and half of all PODs contain more than one transformer.

**Request:**

- (a) What would the AESO require to develop a customer specific POD cost to reflect different standards of service?
- (b) What would be the timing to undertake this study?

**Response:**

- (a) As discussed in section 6.11.3 (page 115, paragraph 478) of the application, discussion in the tariff consultation working group on the point of delivery cost function and investment level update included “a concept of attributing all costs associated with a system access service to that individual service, and then recovering those costs over time through a site-specific rate.... However, such an approach would require extensive consultation and time to develop, especially with respect to transitioning existing services to a site-specific rate.” The AESO considers the primary requirements for successful implementation of such a rate design approach would be:
  - an estimate of the cost of facilities attributable to each point of delivery;
  - general agreement between the AESO and stakeholders on the basic form and structure of the rate; and
  - an accepted approach for transitioning existing services to the new rate design.
- (b) The AESO considers that such an approach would require extensive consultation and time to develop. The AESO would not propose to begin such a project until the tariff in the current application is approved and implemented.

Once started, the AESO expects that estimating the cost for each point of delivery would require on the order of six calendar months to complete, and consultation on the rate and transition approach would require an additional four calendar months. Regulatory review in a tariff application proceeding followed by implementation would then require at least another year, although the relatively narrow focus of the issue may be suited to a negotiated settlement.

**Reference:** Section 9.5-Reductions or Terminations of Contract Capacity and Section 14-Peak Metered Demand Waivers

**Preamble:** The Provincial Energy Strategy includes Section 3.2 - Wise Energy Use as follows:

### **3.2 Wise Energy Use**

#### **Overview**

*While much of Alberta's energy policy has focused on supply, increasingly we need to integrate the "demand side" in our thinking. The demand side spans a complex range from the choice of energy sources to extract bitumen to household and transportation energy conservation measures. Albertans, as mentioned, are among the highest per-capita energy consumers on the globe. We'd like to set a more appropriate example. Energy resources may need to be consumed, but they should be consumed with emphasis on efficiency, conservation and overall wise use. **It is possible for Albertans not only to set the standard in development of its energy sources, but in their consumption.***

*There are several pragmatic reasons for adopting a strategic approach to the consumption of energy:*

- Energy that companies and individuals do not consume is energy that can be upgraded or sold to further benefit Alberta. So "saving" energy not only reduces heating or lighting costs, but offers the potential to create more wealth for Albertans.*
- The reality is that most CO2 emissions are created in the consumption, not the development, of energy. Reducing per-capita consumption offers real possibilities to help meet emissions targets, even in Alberta where energy development dominates.*
- There is real hope that a combination of wise energy use and appropriate technology development can begin to decouple emissions from energy consumption. In other words, we can begin to create a world where the carbon associated with our living patterns is captured and sequestered, or not even produced in the first place.*
- We acknowledge that the energy we use in developing our resources is under increasing international scrutiny and has the potential to impact our province's ability to market our products to other jurisdictions.*

#### **Approach**

*We will accomplish wiser energy use in this province in the following ways:*

- Work to convey knowledge and awareness - including the costs and benefits - of energy consumption and emissions.*

- *Actively support the replacement of natural gas as an oil sands input fuel with a variety of potential substitutes including synthetic gas from the bottom of the bitumen barrel.*
- *Support adoption of energy conservation measures in buildings and an energy-conscious approach to urban planning.*
- *Work with Canada to establish vehicle emission/efficiency guidelines.*
- *Invest in projects that provide cleaner options to consumers, including mass transit.*
- *Work to ensure vulnerable Albertans and sectors can cope with high energy costs in the future, while not confusing market signals for conservation.*
- *Support upgrades to the electricity system that will increase its capacity, make it more robust and enable Albertans to make better use of it.*
- *Support through planning, technology and education the realization of greater efficiency in the production, conversion and consumption of energy.*

*Wise energy use is within our reach. It is the right thing to do, and the world is watching Alberta. Champions of energy production, Albertans can also set the standard in its consumption.*

**Request:**

- (a) Does the AESO consider this strategy in the development of their rates, terms and conditions?
- (b) Does a 2 year ratchet on Billing Capacity and a 5 year notice period on DTS contract capacity reduction provide an appropriate signal for DTS customers to pursue energy efficiency strategies?
- (c) Would the AESO consider a waiver for both the Billing Capacity and notice period if a DTS customer demonstrated that the reduction was due to an energy reduction/efficiency project?

**Response:**

- (a) The AESO's tariff is based on legislative requirements including those discussed in section 4.2 (pages 25-26) of the application, rate design principles as discussed in section 4.3 (pages 27-28) of the application, and contribution policy principles as discussed in section 6.11 (pages 107-110) of the application. Under sections 119 and 121 of the *Electric Utilities Act*, the AESO's tariff must be approved by the Commission, and the Commission must ensure the tariff is just, reasonable, and not unduly preferential, arbitrarily or unjustly discriminatory, or inconsistent with legislation. Subsection 121(3) of the *Act* adds, "A tariff that provides incentives for efficiency is not unjust or unreasonable simply because it provides those incentives."

Beyond these requirements, the AESO considers government policy such as the Provincial Energy Strategy in the development of its tariff. Also, in accordance with decisions on previous AESO tariff applications as discussed in section 4.3 (page 26) of the application, cost causation is the primary rate design consideration, and a cost causation basis should provide appropriate price signals, should be fair, objective, and equitable, and should minimize or eliminate inter-customer subsidies.

- (b) The two-year ratchet included in the determination of billing capacity provides a strong signal for market participants to take actions to avoid establishing peak metered demands under Rate DTS, including pursuing energy efficiency strategies.

The only component of Rate DTS which requires payment in lieu of a five-year notice for contract capacity reductions is the demand component of the local system charge, which represents only 15% of average bills under proposed Rate DTS. The five-year notice period encourages market participants to plan for load reductions, including those arising from energy efficiency strategies, in a time frame consistent with the typical planning horizon of local transmission system facilities.

The bulk system, operating reserve, voltage control, and other system support services charges comprise about 46% of average bills under Rate DTS, and all are based on metered volumes in the billing period. The calculation of billing capacity under Rate DTS affects only the local system and point of delivery charges under Rate DTS, and includes only 90% of past peak demands and only 90% of contract capacity. Reductions of up to 10% of metered demands will therefore be reflected immediately in all components of Rate DTS.

The AESO considers that the aspects of the AESO's tariff summarized above provide appropriate signals for market participants under Rate DTS to pursue energy efficiency strategies, while providing rates that are fair, objective, and equitable.

- (c) As discussed in part (b) above:
- billing capacity determines only a portion of a Rate DTS bill;
  - only 90% of past peak demands and 90% of contract capacity are included in the calculation of billing capacity; and
  - the two-year ratchet provision encourages avoidance of peak demands.

The AESO accordingly considers that its proposed tariff responds appropriately to reductions arising from an energy reduction or energy efficiency project.

As provided in subsection 5(6) of section 9 of the proposed 2010 ISO tariff, the AESO "may waive or reduce the requirement for payment in lieu of notice where...transmission system benefits arise from the reduction or termination of contract capacity, which benefits may include relief of regional transmission constraints, removal of capacity limitations which would restrict system access service to other market participants or avoidance of future upgrades to the transmission system." In the absence of such benefits to the transmission system, the AESO considers it potentially inequitable to reduce one market participant's bills and by doing so create inter-customer subsidies.

On balance, the AESO considers that, at this time, reductions arising from a market participant's energy reduction or energy efficiency project are appropriately accommodated in its proposed 2010 tariff. The AESO will continue to assess its tariff in the context of legislation, Commission decisions, and government policy, and may propose changes that accommodate reductions from an energy reduction or energy efficiency project differently in a future tariff application.

**Reference:** AESO Rate DTS Local Costs

**Preamble:** In the “Electric Transmission Operating and Maintenance Cost Study”, it states that the weighted capital and non-capital costs for the local system represent 22% of the total system costs with 17.4% being demand related.

**Request:**

In support of the Provincial Energy Strategy, and wise use of the electricity system, would the future requirement for local system be reduced with a tariff incenting off-peak consumption?

**Response:**

Any impact on the need for local system reinforcement would depend on the nature of the shift to off-peak consumption. If demand peaks are simply shifted from an on-peak period to an off-peak period, there would be little impact on local system reinforcement as the local system must be able to supply the non-coincident peaks of market participants in the area. If demand peaks are reduced in on-peak periods such that the market participant’s load becomes more constant on average, the need for local system reinforcement may be reduced or delayed. As discussed in information response ADC.AESO-003 (c), under the proposed 2010 ISO tariff the AESO “may waive or reduce the requirement for payment in lieu of notice where...transmission system benefits arise... [including] avoidance of future upgrades to the transmission system.”