

Title: Bill Impacts (EUB Issue Number 3.22)

Preamble: The DUC seeks clarification on the impact the proposed changes to DTS and PSC will have on DUC members.

The DUC notes that DTS and STS contract demands were provided for all PSC customers in the 2005/2006 AESO proceeding, e.g. Schedule FIRM.AESO-234 (a)

Reference: Appendix E, Rate Impact Analysis

Request:

Please provide an update to the Appendix E spreadsheet (2006-11-03 AESO 2007 GTA - E Bill Impacts.xls) that contains the following additional information:

- Average 2006 DTS contract demand for each POD
- Number of DTS customers served from each POD
- Average 2006 STS contract demand for each POD
- Number of STS customers served from each POD
- Average 2006 monthly system peak coincident peak demand for each POD
- Average 2006 monthly measured demand for each POD
- Average 2006 monthly Billing Capacity for each POD
- Average 2006 monthly energy consumption for each POD
- Identifier for all PODs where the PSC is currently applied under the 2006 tariff
- Identifier for all PODs where the PSC is proposed to be applied under the 2007 tariff
- Identifier for all PODs where the PSC is proposed to be applied due to the customer ownership of transformation under the 2007 tariff
- Identifier for all PODs where the PSC is proposed to be applied due to the lack of transformation (TFO owns substation, however, transformation is not required / provided) under the 2007 tariff
- Identifier for all PODs where the customer owns the entire substation

Response:

The AESO notes that, based on the preamble, the information is being sought for Primary Service Credit customers. Information on Primary Service Credit customers is provided in the response to Information Request CG.AESO-017 (b-c), including all PSC customers under the AESO's 2006 tariff and PSC customers under the proposed 2007 tariff. The AESO understands that all PSC customers under the 2006 tariff own their entire substation.

The AESO considers much of the requested information for other customers (such as contract capacity, metered demand, and substation ownership) to be confidential information, and does not consider it appropriate to disclose such information publicly. The AESO also considers that correlating Primary Service Credit customers (in the response to IR CG.AESO-017 (b-c)) to the

PODs listed in Appendix E to the AESO's 2007 GTA would also inappropriately identify billing data for specific customers. Finally, the AESO suggests the requested detail is not required to assess the rate impact analysis for which data was provided in Appendix E.

The AESO notes it has updated the information in Appendix E and provided updated rate impact analyses in response to Information Request BR.AESO-003 (a). Schedule BR.AESO-003 (a)-A3 includes average billing determinants for each POD based on actual values from December 2005 through November 2006. The AESO offers the following additional comments on the information provided in Schedule BR.AESO-003 (a)-A3.

- There is one DTS customer at each DTS Point of Delivery (POD).
- There are no STS customers at a DTS POD. STS Customers are served through Points of Supply (POSs). A substation fraction (in the column labeled "SF" in Schedule BR.AESO-003 (a)-A3) of less than 1.00 indicates the interconnection of an STS customer or customers, or another DTS customer or customers, at the same substation serving the POD to which the substation fraction applies,
- Average monthly billing capacity is provided in the column labeled "Billing Cap (MW)" in Schedule BR.AESO-003 (a)-A3.
- Average monthly energy consumption is provided in the column labeled "Average Monthly (MWh)" in Schedule BR.AESO-003 (a)-A3.
- The average coincident peak demand can be estimated by multiplying the average monthly billing capacity times the coincident metered demand to highest metered demand ratio provided in the column labeled "CMD/HMD" in Schedule BR.AESO-003 (a)-A3.



Title: Primary Service Credit (EUB Issue Number 3.28)

Preamble: DUC is interested in comparison of proposed to historical credits paid.

Reference: Primary Service Credit (EUB Issue Number 3.28)

Request:

- (a) Please update Table 4.9.1 and include actual credits paid in 2005 and 2006.
- (b) Please provide a schedule, in spreadsheet format, that shows the derivation of the AESO's forecast of credits to be paid in 2007 of \$3.8 million (Schedule 5.2, column A, line 6).

Response:

- (a) The Customer-Owned Substation Credits paid in 2002 through 2005, and the Primary Service Credits paid in 2006, were as follows:

Year	Total Credits
2002	\$2,835,872
2003	4,361,216
2004	5,258,977
2005	6,416,607
2006	6,247,720
Total	\$25,120,392

The values in the table above represent data current as of January 2007, and include adjustments that have occurred since the data for 2002-2004 was compiled and presented in the AESO's 2005-2006 GTA.

- (b) Please refer to the response to Information Request CG.AESO-017 (b-c).

The schedule attached to that response provides details of a \$3.6 million forecast of Primary Service Credits to be paid in 2007. The \$3.8 million amount included in section 5 of the AESO's 2007 GTA was based on an interim version of the Primary Service Credit and had inadvertently not been updated to the final PSC as filed.

Title: Primary Service Credit (EUB Issue Number 3.38)

Preamble: For customers who own their own substations, is the proposed PSC level consistent with the Customer Contribution Study information?

The DUC notes that the proposed PSC is based on 40% of the proposed DTS POD Charge, which is derived from the proposed POD cost function (equation 1). The DUC also notes that the substation cost equation ($\$1.84M + (\$1.22M \times DTS)$) is greater than 40% of the proposed POD cost function over the range of DTS contract capacity values.

Reference: s. 4.5.2, p. 19 of 53, l. 40; App. G, Customer Contribution Study, p. 14, Substation Costs & s. 4.9, p. 51 of 53, l. 30

Request:

- (a) Using the substation cost equation ($\$1.84M + (\$1.22M \times DTS)$), please derive a PSC for customers who owns a substation.
- (b) Please discuss the merits of proposing two PCSs [*sic*], one for customers who own transformation and a second for customers who own a substation.

Response:

- (a) The substation cost function as provided in part (a) of the request has a misplaced decimal point. The correct function, as provided on page 14 of the *Customer Contribution Study* filed as Appendix F to the AESO's 2007 GTA, is:

$$\text{Substation Cost} = \$1.848 \text{ million} + (\$0.122 \text{ million/MW} \times \text{DTS Capacity})$$

As provided on page 51 of section 4 of the Application, the Primary Service Credit is calculated as 40% of the DTS POD charge. The POD charge is based on the average cost function developed in the *Customer Contribution Study* (filed as Appendix F to the Application) and provided as equation 1 on page 21 of the *Study*:

$$\text{Average Cost} = \$4.451 \text{ million} + (\$0.154 \text{ million/MW} \times \text{DTS Capacity})$$

The costs represented by the Primary Service Credit can therefore be estimated as 40% of the average cost function. Multiplying each component of the average cost function by 40% provides the following estimated PSC cost function:

$$\text{PSC Cost} = \$1.780 \text{ million} + (\$0.062 \text{ million/MW} \times \text{DTS Capacity})$$

Comparing the PSC cost function to the substation cost function provided first above, the fixed component of the PSC cost function is about 96%, and the demand component is about 51%, of the corresponding components of the substation cost function.

The Primary Service Credit, like the Customer-Owned Substation Credit that preceded it, is based on the cost savings of transformer capacity costs for typical configurations and loads, levelized to determine a monthly credit. The approach, as laid out in the AESO's 2006 GTA, was approved by the EUB in Decision 2005-096 (pp 38-39):

The Board understands the rationale for the payment of the credit is that the credit reflects the fact that DTS customers have paid for the full cost of transformation facilities at their site. As DTS customers, they have signed a contract with the AESO for service and are obligated to pay fixed DTS charges related to their contract capacity. Included in this fixed charge is payment to the AESO for the cost of transformation equipment that the system would usually pay for and provide to the customer. As the customer has already paid for the full cost of transformation equipment at their site, it is not necessary for the system to invest in such facilities.

Consequently, if no credit were available to these customers they would be in a position of paying twice for one set of transformation assets – once when the customer installed and paid for the assets, and a second time when paying their fixed DTS charges each month. The Board does not consider it reasonable to compel a customer to pay twice for one set of assets. It follows that a credit should be available to such customers to ensure that they do not pay twice. The Board considers this to be just and reasonable.

With respect to establishing the amount of the credit, the AESO has proposed and the Board agrees, that it should be related to the avoided average cost of system investment for providing the level of DTS service contracted for. The Board considers it important for parties to understand that the amount of the credit is not related to the actual cost paid by the individual customer for the assets installed or even what the system would have paid for providing service to a particular customer. The DTS rate is a postage stamp rate which seeks to collect, on an average basis, the total cost of system investment to provide service to all customers. What a customer has expended to acquire its own assets or what the system would have to spend to supply equivalent service could vary widely from customer to customer and from the system postage stamp average. Globally however, the Board would expect there to be some approximate relationship between customer cost and credits paid. The Board notes the comment of the COS Coalition at paragraph 44 of their argument and Table 1 of argument:

As can be seen from Table 1, excluding DAT Customers, there are about an equal number of COS eligible customers with a PV COS Credits / DTS Cost Est. ratio greater than one and less than one (average is 0.98). This analysis suggests that, on average, the COS rate is set appropriately. As discussed with the Chairman, the COS

Coalition panel agreed that a certain amount of averaging takes place with the AESO Tariff and that, on average, the COS (and PSC) rate should provide a general level of neutrality for other AESO customers.

The AESO provided calculations for the COS Credit and the proposed PSC credit. The Board continues to accept these approximate calculations as reasonable. The Board notes that the AESO's calculations are based upon typical configurations the system would invest in to provide DTS service to a customer. This is what the DTS rate is designed to recover.

FIRM proposed a credit of \$200/MW/month. This proposal is based upon actual costs customers have paid for all their transformation requirements, including the generation related requirements of dual use customers. The Board does not consider this to be appropriate. As stated above, this is not the basis of the DTS revenues that are being credited back to the customers. The Board does note, however, that the actual average of the three sample configurations provided by the AESO is \$660/MW/month, somewhat less than their proposed credit. The Board considers that this is a more appropriate amount to credit customers to maintain neutrality between self supply and system supply. The Board directs the AESO to use this amount for the calculation of future PSC Credits. The Board is willing to entertain adjustments in the future to reflect changes in costs over time.

The AESO notes, in particular, the EUB's direction to the AESO to use the amount of \$660.00/MW/month for the calculation of future Primary Service Credits. The AESO has incorporated that amount in its calculation of its proposed 2007 PSC, to continue its compliance with that direction.

As discussed in the quoted reference from Decision 2005-096, the PSC reflects the cost of transformation only, not the cost of the whole substation. As such it is reasonable that the PSC cost function be somewhat less than the substation cost function determined in the *Customer Contribution Study*.

The AESO further notes that the PSC as approved in the AESO's 2006 tariff reflected the following capital costs (from Table 4.9.3 on page 40 of section 4 of the AESO's 2006 GTA):

Load	Capital Cost	Incremental		
		Load	Capital Cost	Unit Cost
10 MW	\$750,000	10 MW	\$150,000	\$15,000/MW
20 MW	\$900,000			

In the context of the incremental cost underlying the 2006 PSC, the 2007 PSC represents an appropriate increase reflecting changes in costs since the 2006 PSC was established.

- (b) The AESO does not consider it appropriate to develop two separate Primary Service Credits. Please refer to the response to Information Request TCE.AESO-029 (b-d) for additional information.