

Reference: Table 4.5.2 Average Per-POD DTS Bill Impacts by Billing Capacity and Load Factor, 2005-2007 (Section 4, pages 26-28)

Request:

- (a) Does the AESO agree that large PODs have received relatively uniform increases (from 2005 to 2007 proposed rates) regardless of load factor whereas smaller PODs have received larger increases for lower load factor PODs? If the AESO does not agree please fully explain your answer.
- (b) If the AESO agrees, to what aspect of the tariff does the AESO attribute this larger increase for smaller lower load factor PODs? Please fully explain your answer.

Response:

- (a) The AESO agrees that larger PODs will receive somewhat more uniform increases than smaller PODs. For PODs with a substation fraction of 1.000 (as discussed more fully in part (b)(iv) below):
 - three-quarters of PODs with less than 17 MW billing capacity experience DTS bill increases from 2005 to 2007 that range from 75% to 157%, a factor of about two times, while
 - three-quarters of PODs with more than 17 MW billing capacity experience DTS bill increases from 2005 to 2007 that range from 45% to 70%, a factor of about 1.5 times.
- (b) As listed on page 27 of section 4 of the AESO's 2007 GTA, there are several factors which affect individual POD bill impacts. Four of those factors appear to result in somewhat more uniform increases in DTS bills for larger PODs when comparing charges under the 2005 rate to those under the proposed 2007 rate:
 - introduction of the customer component of the POD charge,
 - development of different demand components in the POD charge for billing capacities below and above 7.5 MW,
 - reduction of the energy component of the interconnection charge and increases to the customer and demand components, and
 - application of the substation fraction to the customer and first demand component of the POD charge.

The aggregate impact of multiple factors makes it difficult to isolate trends when examining bill impacts. However, the AESO offers the following comments. Throughout the discussion small PODs are defined as less than 17 MW billing capacity and large PODs are defined as 17 MW or more billing capacity, to align with the groups presented in Table 4.5.2 of the AESO's 2007 GTA.

- (i) The proposed 2007 DTS rate incorporates a fixed component of \$4,762.00/month, with no similar charge in the 2005 DTS rate. The effect of this fixed component is much larger for small PODs. For example, a 17 MW POD was charged about \$66,500.00 per month in 2005, and adding the fixed component would increase that bill by about 7%. However, a 5 MW POD was charged about \$19,500.00 per month in 2005, and adding the fixed component would increase that bill by about 24%. The increase becomes much greater for very small PODs, with the fixed component representing a 122% increase to the \$3,900.00 bill a 1 MW POD would have received in 2005.
- (ii) The proposed 2007 DTS rate incorporates aggregate demand charges of \$4,305.00/MW for billing capacities up to 7.5 MW and \$1,952.00/MW for billing capacities greater than 7.5 MW. The 2005 DTS rate included a single demand charge of \$1,365.66/MW of billing capacity. The different demand components applicable to small PODs under the 2007 rate create a wider range of increases for small PODs than for large PODs.
- (iii) The proposed 2007 DTS rate has a greater proportion of costs recovered through demand charges than the 2005 rate, as discussed in the response to Information Request BR.AESO-002 (b). Large PODs generally have higher and more consistent load factors than small PODs, and therefore see a more consistent impact from this change. For example, for PODs with a substation fraction of 1.000, three-quarters of large PODs have load factors from 50% to 80% while three-quarters of small PODs have load factors from 35% to 80%. The wider range of load factors for small PODs results in greater variability of bill impacts attributable to the change in cost classification.
- (iv) A substation fraction of less than 1.000 is more frequently applicable, and is generally smaller, at small DTS PODs. A substation fraction of less than 1.000 applies at 30% of small PODs, and averages 0.198 at those PODs. A substation fraction of less than 1.000 applies at only 16% of large PODs, and averages 0.414 at those PODs. The more frequent application of substation fractions of less than 1.000 at small DTS PODs tends to make bill impacts more variable at those PODs.

The substation fraction is relatively independent of other billing determinants, and its impact in particular makes it difficult to discern trends in bill impact analysis. In assessing the impact of the other factors affecting bill impacts, the AESO found that excluding PODs with substation fractions of less than 1.000 made the impact of other factors more visible.

The remaining two factors which affect individual POD bill impacts — movement to a 90% 2-year ratchet and recovery of voltage control costs on a fixed rather than varying usage basis — appear to have a lesser role in the somewhat more uniform increases in DTS bills for larger PODs.

Reference: The AESO notes that the detailed POD bill impacts provided in Appendix E are preliminary. In particular, the 2006 average bills are calculated from only five months of coincident metered demand billing determinants, with the remaining seven months estimated based on those five. As well, changes in contract capacities during the period covered by the billing determinants (June 2005 to May 2006) may result in calculated bill averages that are not representative of on-going bills at a POD. The AESO therefore suggests caution be used when examining the amounts provided, and the average bill amounts should be compared with recent POD bills to verify their reasonableness (Section 4, page 31)

Request:

- (a) Please explain how the coincident demand was calculated for the seven months of estimated demand.
- (b) Please provide the ratio of CP to NCP demand for each POD that is reflected in the CP utilized for the seven forecast months.
- (c) Please provide an update to the preliminary bill impacts based on the most recent data. Please provide the data utilized in the update.
- (d) Please provide the average ratio of CP to NCP for each POD recognized in the updated bill impact calculations.
- (e) Please provide the bill impact calculations (updated version) assuming no ratchet on bulk transmission charges for 2007 (with rates adjusted to collect the total revenue requirement). Please provide the unit rates utilized in the calculation.

Response:

- (a-b) Please refer to the response to Information Request BR.AESO-003 (a).
- (c) Please refer to the response to Information Request BR.AESO-003 (a).

Please refer to the response to Information Request IPCAA.AESO-032 (a-b) with respect to the provision of data used in the analysis.
- (d) Please refer to the response to Information Request BR.AESO-003 (a).
- (e) Please see attached Schedules IPCAA.AESO-034 (e)-1 through -9 for the bill impact analysis using the requested rate. Please refer to the response to Information Request BR.AESO-003 (a) for a description of the information contained in the schedules.