

# Information Document

## Transmission Constraint Rebalancing Charge

### ID No. 2016-017T



Information Documents are not authoritative. Information Documents are for information purposes only and are intended to provide guidance. In the event of any discrepancy between an Information Document and any Authoritative Document(s) in effect, the Authoritative Document(s) governs.

#### 1 Purpose

This Information Document relates to the following Authoritative Documents<sup>1</sup>:

- Rate DTS of the ISO tariff, *Demand Transmission Service* (“Rate DTS”); and
- Rate FTS of the ISO tariff, *Fort Nelson Demand Transmission Service* (“Rate FTS”).

The purpose of this Information Document is to provide information regarding the hourly calculation of the transmission constraint rebalancing charge under Rates DTS and FTS, as described in subsection 5 of each of those rates in the ISO tariff. The transmission constraint rebalancing charge became effective on November 26, 2015 as approved in Alberta Utilities Commission (“Commission”) Decision 20623-D01-2015.

#### 2 Transmission Constraint Rebalancing Costs

In Decision 3528-D01-2015 regarding the AESO’s compliance filing of section 302.1 of the ISO rules, *Real Time Transmission Constraint Management* (“TCM Rule”), the Commission approved changes to the TCM Rule such that “the costs of any generation re-dispatch necessary to ensure that transmission system operating limits are respected shall be determined based on generators’ offers in the competitive energy market unless other arrangements, such as Transmission Must-Run (“TMR”) contracts, are in place” and “the AESO shall recover the costs of generation re-dispatch necessary for transmission reasons through the transmission tariff.”<sup>2</sup>

In accordance with the Commission’s approvals, transmission constraint rebalancing costs are incurred “when the transmission system lacks the ability to deliver electricity from a generator to a given electricity consuming area without contravening reliability requirements (in other words, while maintaining supply adequacy and system security).”<sup>3</sup> In such circumstances, under the TCM Rule, a market participant upstream of a constraint may be dispatched down to mitigate a constraint, and a market participant downstream of the constraint may be dispatched up for the purpose of transmission constraint rebalancing. A downstream market participant that is dispatched up receives a transmission constraint rebalancing payment for the energy provided for the purpose transmission constraint rebalancing.

Transmission constraint rebalancing payments made to market participants in accordance with the TCM Rule are then recovered through the transmission constraint rebalancing charge in the ISO tariff.

Real-time transmission constraints may occur at any time of day or year, and do not generally correlate to periods of peak system load or high pool price. The transmission constraint rebalancing charge applies only in hours in which transmission constraint rebalancing payments are made.

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<sup>1</sup> “Authoritative Documents” is the general name given by the AESO to categories of documents made by the AESO under the authority of the Electric Utilities Act and regulations, and that contain binding legal requirements for either market participants or the AESO, or both. Authoritative Documents include: the ISO rules, the Alberta reliability standards and the ISO tariff.

<sup>2</sup> Decision 3528-D01-2015, *AESO Compliance filing pursuant to Decision 2013-135 regarding ISO rules Section 302.1*, at paragraph 3.

<sup>3</sup> Decision 2013-135, *Complaints by ATCO Power Ltd. and ENMAX Energy Corporation regarding ISO rule Section 302.1: Real Time Transmission Constraint Management*, at paragraph 26.

### 3 Hourly Calculation of Transmission Constraint Rebalancing Charge

As explained in subsection 5 of Rates DTS and FTS, the transmission constraint rebalancing charge equals the sum, over all hours in the settlement period, of the amount calculated in each hour as the product of:

- (a) metered energy for the Rate DTS or Rate FTS market participant in the hour; and
- (b) the total cost of transmission constraint rebalancing payments in the hour divided by the total metered energy for all Rate DTS and Rate FTS market participants in the hour.

The transmission constraint rebalancing charge in an hour reflects the hourly variability of transmission constraint rebalancing costs, the total load on the transmission system in the hour and the actual load of each individual Rate DTS or FTS market participant in the hour.

The allocation of hourly transmission constraint rebalancing costs to a single market participant over a single day is illustrated in Table 1, below.

At the end of each settlement period, when Rate DTS and Rate FTS metered energy is available for each hour in the settlement period, the AESO calculates the transmission constraint rebalancing charge for each market participant for each hour in the settlement period as in Table 1. The AESO then sums the hourly charge and includes it on the market participant's statement of account for the settlement period.

### 4 Information Available for Calculation of Transmission Constraint Rebalancing Charge

After the end of each settlement period, the AESO posts the hourly transmission constraint rebalancing costs and the hourly total metered energy for all Rate DTS and Rate FTS market participants, as used in the calculation of the transmission constraint rebalancing charge under Rates DTS and FTS. The posted information is similar to the information in columns C and D in Table 1, below. A market participant may use the individual hourly metered energy volumes to calculate the transmission constraint rebalancing charge that appears on the market participant's statement of account for the settlement period.

The information used for the calculation of the transmission constraint rebalancing charge is posted as a supplement to this Information Document, titled in the form *Transmission Constraint Rebalancing Charge Supplement - MMM YYYY Prelim (YYYY-MM-DD)* where the first date indicates the settlement period and the second date is the date of preparation.

To ensure the total metered energy reflects the latest volumes on which statements of account are based, the information will reflect initial, interim and final settlement volumes as described in subsection 3(1) of section 13 of the ISO tariff, *Financial Security, Settlement and Payment Terms*.

**Table 1 – Example Allocation of Hourly Transmission Constraint Rebalancing Costs**

<i>Hour Ending</i> [A]	<i>Market Participant Metered Energy (MWh)</i> [B]	<i>Total Transmission Constraint Rebalancing Costs</i> [C]	<i>Total Rate DTS and Rate FTS Metered Energy (MWh)</i> [D]	<i>Transmission Constraint Rebalancing Cost per MWh</i> [E = C ÷ D]	<i>Hourly Transmission Constraint Rebalancing Charge</i> [F = B × E]
01	15.2	\$0	8,077	\$0.00	\$0.00
02	15.8	\$0	7,918	\$0.00	\$0.00
03	15.2	\$0	7,836	\$0.00	\$0.00
04	15.6	\$0	7,800	\$0.00	\$0.00
05	18.9	\$0	7,836	\$0.00	\$0.00
06	24.3	\$0	8,056	\$0.00	\$0.00
07	38.4	\$1,068	8,485	\$0.13	\$4.84
08	45.8	\$2,165	9,080	\$0.24	\$10.92
09	44.2	\$2,253	9,195	\$0.27	\$11.79
10	43.3	\$2,191	9,154	\$0.24	\$10.36

<i>Hour Ending [A]</i>	<i>Market Participant Metered Energy (MWh) [B]</i>	<i>Total Transmission Constraint Rebalancing Costs [C]</i>	<i>Total Rate DTS and Rate FTS Metered Energy (MWh) [D]</i>	<i>Transmission Constraint Rebalancing Cost per MWh [E = C ÷ D]</i>	<i>Hourly Transmission Constraint Rebalancing Charge [F = B × E]</i>
11	42.8	\$1,967	9,196	\$0.21	\$9.16
12	35.4	\$1,796	9,165	\$0.20	\$6.94
13	42.8	\$1,655	9,080	\$0.18	\$7.80
14	44.2	\$1,661	9,067	\$0.18	\$8.10
15	43.3	\$2,200	9,010	\$0.24	\$10.57
16	43.7	\$2,386	9,034	\$0.26	\$11.54
17	43.4	\$2,248	9,204	\$0.24	\$10.60
18	40.4	\$2,954	9,613	\$0.31	\$12.41
19	35.6	\$2,569	9,608	\$0.27	\$9.52
20	18.3	\$1,931	9,504	\$0.20	\$3.72
21	15.1	\$1,476	9,390	\$0.16	\$2.37
22	15.4	\$870	9,096	\$0.10	\$1.47
23	15.8	\$1,019	8,682	\$0.12	\$1.85
24	15.3	\$1,493	8,284	\$1.18	\$2.76
<b>Total</b>	<b>728.2</b>	<b>\$34,103</b>	<b>211,370</b>	<b>\$0.19</b>	<b>\$136.73</b>

The AESO first posts the *Transmission Constraint Rebalancing Charge Supplement* as “Prelim” when it issues preliminary statements of account on the fifth business day of the month. The AESO then updates and re-posts the *Supplement* as “Final” when it issues final statements of account on the fifteenth business day of the month. Amounts may change between preliminary and final postings to reflect changes to billing amounts between preliminary and final statements of account.

If no transmission constraint rebalancing costs are incurred in a settlement period, the *Supplement* is posted showing zeros for the total transmission constraint rebalancing costs and the hourly transmission constraint rebalancing charge in each hour.

Stakeholders can access the *Transmission Constraint Rebalancing Charge Supplement* posting for the current settlement period on the AESO website by following the path [www.aeso.ca](http://www.aeso.ca) ► Rules, Standards and Tariff ► Tariff. *Supplement* postings for prior settlement periods are archived in the same location.

Stakeholders can also access an “Estimated Cost of Constraint” report for near-real-time estimates of hourly transmission constraint rebalancing costs and hourly transmission constraint rebalancing charges on the AESO website by following the path [www.aeso.ca](http://www.aeso.ca) ► Market ► Market and system reporting. The current report includes estimates for the last 24 hours while historical reports can be produced for desired date ranges.

The “Estimated Cost of Constraint” reports are based on transmission constraint rebalancing dispatch volumes, SCADA (supervisory control and data acquisition) data, offer submissions, and other real time market data. These reports are not updated to reflect initial, interim and final settlement volumes. Actual costs used for tariff billing will include hourly metered volumes from revenue-class meters at month-end, and may differ to some extent from values in the “Estimated Cost of Constraint” reports.

### Revision History

Posting Date	Description of Changes
2016-09-28	Administrative amendments
2016-03-04	Initial release