

File Format Specification for the Transmitter Transmission Tariff Data File

Issue 7.0

This file format specification deals with the data file that the Ontario transmitters may use for the purpose of validating the energy measurements used by the IESO to determine transmission tariff billing demands.

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Document ID IMP_SPEC_0007

Document Name File Format Specification for the Transmitter Transmission Tariff Data File

Issue 7.0

Reason for Issue Updated to support market participant readiness in preparation for the RSS project

implementation

Effective Date May 1, 2023

Document Change History

Issue	Reason for Issue	Date
1.0	Unapproved version for Baseline 6.1.	April 2, 2001
2.0	Update for Multiple Transmitter Support	March 20, 2002
3.0	Name and logo changed to IESO	June 1, 2005
4.0	Add a new version of reports for transmission to ORMS Repository.	March 8, 2006
5.0	Add information that the calculation of transmission charges uses holidays identified by the OEB.	September 10, 2008
6.0	Issue release for Baseline 28.0 - Amendment of MR-00392 "Remove Provisions for Physical Allocation Data".	September 12, 2012
7.0	Updated to support market participant readiness in preparation for the RSS project implementation	May 1, 2023

Related Documents

Document ID	Document Title
N/A	

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Reference (Section and Paragraph)	Description of Change
2.2.3	Removed section as it was an explanation of the Physical Allocation Data (PAD) - Amendment of MR-00392 "Remove Provisions for Physical Allocation Data".
3	Addition of new Settlement Types to facilitate Resettlement Statements Supporting Data Files
3.1	Addition of new Settlement Types to facilitate Resettlement Statements Supporting Data Files

1. Introduction

1.1 Purpose

This specification deals with the data that the *transmitter* may use for the purpose of validating the *energy* measurements used by the *IESO* to determine *transmission tariff* billing *demands* for all *delivery points* defined for the purposes of *transmission services charges* and for which the transmitter has been associated by the *IESO* as the *transmitter*.

1.2 Scope

This document specifically covers the file structures of the Transmitter Transmission Tariff Data file which contains the hourly measurements for every *delivery point* defined for transmission network charges or transmission connection charges associated with the *transmitter*.

1.3 Who Should Use This Document

This document is intended solely for the *market participants* who are designated as *transmitters* within the *IESO administered market*. It may also be used by other parties interested in the format of *transmission tariff* related data files, however the *Transmitter Transmission Tariff* Data file may only be downloaded by designated *transmitters*.

1.4 Conventions

Formal definitions of italicized terms in this document may be found in Chapter 11 of the *IESO* "Market Rules."

- End of Section -

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2. Transmission Tariffs

2.1 Overview

The *IESO* has the responsibility for collecting *transmission service charges* from entities participating in the *IESO-administered market* and distributing payments received to the *transmitters* entitled to such payments. While certain participants as *transmitters* provide and operate regulated transmission facilities in Ontario, the *IESO* directs the operation of the transmission facilities that are components of the *IESO-controlled grid*. The *IESO* will collect *transmission services charges* on the basis of the transmitters' cost allocation methodology and rate design for the provision of *transmission service*.

The IESO Transmission Tariff Demand Calculator (TTDC) system operates within the IESO market systems environment to process measurements from Registered Wholesale Meters and provide billing demand determinants required for the calculation of Provincial Transmission Service charges. The IESO Market Information Management (MIM) system provides interchange export schedule data required for the calculation of the Export Transmission Service charges. The IESO Commercial Reconciliation System uses the billing demand determinants and export schedules as it applies the transmission tariff rates in the settlement process.

2.2 Billing Determination - Business Rules

The *IESO* systems and *settlement process*ing for *transmission service charges* is governed by and subject to the *transmitters*' Transmission Rate Schedules for Provincial *Transmission Service* (PTS) and *Export Transmission Service* (ETS) as established by the *Ontario Energy Board* (*OEB*). These Transmission Rate Schedules provide a complete description of the basis for the billing *demand* determinants and monthly rates used for the PTS charges and the energy basis and hourly rate used for the ETS charge. The Transmission Rate Schedules should be obtained from the *transmitter*.

Calculation of *demand* determinants for the PTS charges is based on the methodology outlined in the Transmission Rate Schedule and implementation decisions taken jointly by the *transmitters* and the *IESO* as ordered by the *OEB*. The following provides a synopsis of these implementation decisions or business rules.

2.2.1 Relationship of Transmission Delivery Points and *IESO* Defined *Delivery Points*

Transmission Delivery Points as identified by the *transmitters* under the OEB approved Transmission Rate Schedules refer to *facilities* that are directly connected to the *transmitter* owned *transmission system*.

The *IESO* will define two *delivery points* for the purpose of totalizing and loss adjusting *energy* readings at each Transmission Delivery Point identified by the *transmitters*. A *delivery point* will be defined for every Transmission Delivery Point to determine the billing demand for transmission *network service* charges. A second *delivery point* will be defined as required to determine the billing demand for line and transformation *connection charges*.

2.2.2 Demand Based on Energy Consumed During the Clock Hour

The *IESO* Revenue Metering System (RMS) will net metering injection and withdrawal channels within each clock hour and report either net withdrawal (W) or net injection (I) values for each clock hour interval (i.e. intervals 1 through 24 each day) for each *delivery point* defined for transmission network charges or transmission *connection charges*.

The TTDC system will use *demand* measurements of *energy* consumed during each clock hour interval as reported by RMS. The TTDC system will treat any hourly interval for which an injection (I) has been reported as a zero demand interval.

All *metering installations* in the Province of Ontario will reference Eastern Standard Time in accordance with the "Market Rules" Chapter 6, Section 11.2.

2.2.3 Determination of Peak System Demand

Peak system demand will be determined for any one hour on any day of a month based on loads excluding interchange schedules. Peak system demand will be calculated based on the hourly sum of net withdrawal (W) values reported by RMS for each clock hour interval at all delivery points defined for transmission network charges.

The *peak system demand* hour will be designated as a clock hour ending on the hour. For example hour 1 will be the hour ending 0100 hours, hour 2 will be the hour ending 0200 hours, etc.

The TTDC will provide for tie breaking for *peak system demand* intervals selecting the most recent *peak system demand* maximum quantity and interval when such ties occur.

The *peak system demand* date and hour are required for the determination of the *coincident peak demand* for each *delivery point* defined for transmission network charges as governed by the *transmitters*' Transmission Rate Schedules for Provincial *Transmission Service* (PTS).

2.2.4 Tie-Breaking for Peak *Demand* Determinants

Network Billing Demand

The charge determinant for *network service* shall be the higher of the hourly *coincident peak demand* during the month and 85% of the customer's *peak period demand* at each *delivery point* defined for transmission network charges in any one hour during the peak period between 7 AM to 7 PM EST on weekdays that are not statutory holidays. For the purposes of calculating transmission charges, the *IESO* uses the holidays identified by the Ontario Energy Board.

The TTDC system will provide for tie breaking between *coincident peak demand* and *peak period demand* selecting the *coincident peak demand* quantity and interval when such ties occur.

Coincident Peak Demand

The *coincident peak demand* is defined as the *transmission customer's* demand at each *delivery point* defined for transmission network charges at the *peak system demand* hour as determined per section 2.2.4 above. The demand will be determined monthly.

Peak Period Demand

The peak period is the period between 0700 hours to 1900 hours Eastern Standard Time during winter (i.e. during standard time) and 0600 hours to 1800 hours Eastern Standard Time during summer (i.e. during daylight savings time) on weekdays that are not statutory holidays. The *transmission*

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customer's peak period demand is determined as 85% of the demand at each delivery point defined for transmission network charges for any one hour during the peak period on any day of a month.

The TTDC system will provide for tie breaking for *peak period demand* intervals selecting the most recent *peak period demand* maximum quantity and interval when such ties occur.

Connection Billing Demand

The charge determinant for *line connection service* and *transformation connection service* shall be the *transmission customer's* monthly *non-coincident peak demand* at each *delivery point* defined for transmission connection charges. The *non-coincident peak demand* is defined as the *transmission customer's* maximum hourly demand in any clock hour of the month.

The TTDC system will determine the *non-coincident peak demand* for each *delivery point* defined for transmission connection charges. Determination of the appropriate demand charges (either Line Connection and/or Transformation Connection) to be applied to each *delivery point* defined for transmission connection charges will be based on registration data provided by the *transmitter*.

The TTDC system will provide for tie breaking for *non-coincident peak demand* at each *delivery point* defined for transmission *connection charges* selecting the most recent non-coincident peak quantity and interval when such ties occur. Ties for line connection demand and transformation connection demand will be broken separately based on the applicable dates for line connection and transformation connection charges.

2.2.5 Transmission Customer and Transmitter of Record

Provincial Transmission Service

The *IESO* Market Operation Systems and related procedures provide for change of association of *transmission customers* to each *delivery point* defined for transmission network charges or transmission connection charges to occur at midnight on any day of each month.

The *IESO* will bill the *transmission customer* of record at the end of the effective period for each *transmission tariff*. This is treated differently for network and connection tariffs. The following addresses the treatment of transmission charges when association of a transmission customer to a *delivery point* is changed during any month.

• Network Service Tariff

The TTDC system will anticipate that there will be continuous association of a *transmission customer* to each *delivery point* defined for transmission network charges. The business rule built into the TTDC will assign the demand determinant for the network tariff to the *transmission customer* of record on the last calendar day of any month for each *delivery point* defined for transmission network charges. Thus the *network service* charge will be billed to the transmission customer assigned to each *delivery point* defined for transmission network charges as registered with the *IESO* on the last calendar day of the month.

• Connection Service Tariffs – Line and Transformation

The TTDC system will anticipate that there may be discontinuity in the application of the line or transformation tariffs to any *delivery point* defined for transmission *connection charges*. (Such a discontinuity in the application of the either line connection or transformation connection tariffs occurs presumably through the sale of the *transmitter* owned line or transformation asset.) The TTDC system will also anticipate that the *transmission customer* associated to a *delivery point* defined for transmission connection charges may change before the end of a month. (Such a change in association of a transmission customer occurs presumably through the sale of the *facility*.) For

these events the TTDC system will determine the connection *demand* determinants for the line and transformation tariffs and assign the line and transformation charges to the appropriate *transmission customer* on the basis of the following business rules:

- 1) The *demand* determinant for the line *connection charge* will be assigned to the *transmission customer* of record associated to the *delivery point* defined for transmission connection charges on the last date of the applicability of the line tariff to the *delivery point* defined for transmission connection charges.
- 2) The *demand* determinant for the transformation connection charge will be assigned to the *transmission customer* of record associated to the *delivery point* defined for transmission *connection charges* on the last date of the applicability of the transformation tariff to the *delivery point* defined for transmission connection charges.
- 3) If the *transmitter* ends the application of the line connection or the transformation *connection* charges at any one *delivery point* defined for transmission connection charges on different dates in a month, then the *demand* determinants for each connection charge will be determined on periods of different length, each period ending on the last date of the applicability for each charge.

The *IESO* must receive timely notification when there is a change of ownership of a facility or any other commercial change that would result in the need to send the billing for transmission charges to another commercial entity other than the transmission customer identified by the *transmitter*. The *IESO* will continue to bill *transmission tariff* charges to the *transmission customer* associated with a transmission delivery point until notice from the transmitter of the change to the associated *transmission customer*. Any such new commercial entity must be registered with the *IESO* and maintain the capabilities necessary to act in accordance with the *IESO* "Market Rules."

For all of the above circumstances the *IESO* will not determine the *settlement* of *transmission tariff* charges between *transmission customers* when ownership is changed during a month. Such settlement must be determined as part of the purchase/sale of any such *facility*. It will be the responsibility of the transmission customer to settle the end-of-month liability for payment of transmission charges between buyer and seller as part of the closing of the purchase/sale of any *facility* directly connected to the *transmission system*.

Export Transmission Service

The *IESO* Market Operation Systems and related procedures provide for change of association of one *transmitter* to each *intertie metering point* through which interchange *energy* exports are scheduled.

The *IESO* will collect from each *market participant* exporting *energy* from Ontario the *Export Transmission Service* (ETS) tariff. The ETS collections at each inter-tie will be credited each month to the *transmitter* associated with each *intertie metering point* as registered by the *IESO* on the last calendar day of the month.

- End of Section -

3. Transmitter Transmission Tariff Data File

The following file format specification deals with the data file that the *transmitter* may use for the purpose of validating the *energy* measurements used by the *IESO* to determine *transmission tariff* billing *demands*. It will be available to the transmitter for those *delivery points* defined for transmission network charges or transmission *connection charges* for which the *transmitter* is associated as the *Transmitter* (TRAN). The measurement data provided will be limited to the detail data of each *transmitter* 's own *transmission customers*. The *Transmitter Transmission Tariff* Data file contains the hourly measurements for every *delivery point* defined for transmission network charges or transmission *connection charges* associated with the transmitter. Each file contains the latest hourly measurements for all associated *delivery points* within the calendar month reported by the *IESO* Revenue Metering System for the purpose of determining the billing demands for the following *charge types*.

- Charge Type 650: Network Service Charge
- Charge Type 651: Line Connection Service Charge
- Charge Type 652: Transformation Connection Service Charge

The TTDC system receives hourly measurements for all *delivery points* defined for transmission network charges or transmission *connection charges*. The hourly measurements are received from the Revenue Metering System (RMS) on a daily basis according to a request schedule found in the Commercial Reconciliation System. This schedule requests that the RMS report on all *delivery points* for the primary trading date. The schedule also requests previously reported trading dates to be checked for incremental changes since they were first reported. If any measurement on one of the previously reported trading dates changes then the RMS will report all hours on that trading date to the TTDC system.

For each *delivery point* defined for transmission network charges or transmission *connection charges* there is one associated Transmitter (TRAN). The *transmitter* must be a *market participant*.

The *Transmitter Transmission Tariff* Data files will follow the same file naming convention as is used for the other *settlement statement* and settlement data files produced by the Commercial Reconciliation System and presented for the *market participant* to pick up in the Settlement Reports tab of the MIM system.

The *Transmitter Transmission Tariff* Data File will be produced twice monthly in support of preliminary and final *settlements* and will contain the most recent version of the hourly measurements for all *delivery points* defined for transmission network charges or transmission *connection charges* for which the *transmitter* is associated as the TRAN.

For convenience, two copies of each Transmitter Transmission Tariff Data File will be made available to *market participants*. The only difference between the versions is the file name (i.e. the content of the copies will be identical).

The file name format for the file available through the Market Participant Interface (MPI) will be as follows:

[Transmitter short name] ['-'] [file type {'TT': Transmitter's Transmission Tariff Data File}] ['-'] [statement type {'P': Physical ("real-time" market settlement statement)}] ['-']

[settlement type {'P': Preliminary or 'F': Final or 'R1': Resettlement 1, 'R2': Resettlement 2 or 'R3': Resettlement 3 or 'R4': Resettlement 4 or 'R5': Resettlement 5 or 'R6': Resettlement 6 or 'RF': Resettlement Final }] ['-'] [primary trading date {YYYYMMDD}]

Example:

MPShortName-TT-P-F-20051231

It is the Transmitter Transmission Tariff Data File ('TT')

It relates to the Physical Market.

It is related to the Final Settlement Statement Transmission Tariff Charges

It relates to the month of December 2005.

The file name format for the version of the file available through the IESO Reports Site Interface will be as follows:

[security level {'CNF': Confidential] ['-'] [market participant short name] ['_'] [file type {'TT': Transmitter's Transmission Tariff Data File}] ['-'] [statement type {'P': Physical ("real-time" market settlement statement)}] ['-'] [settlement type {'P': Preliminary or 'F': Final or 'R1': Resettlement 1, 'R2': Resettlement 2 or 'R3': Resettlement 3 or 'R4': Resettlement 4 or 'R5': Resettlement 5 or 'R6': Resettlement 6 or 'RF': Resettlement Final }] ['_'] [primary trade date {YYYYMMDD}] ['_'] [version number identifying whether this report file was regenerated 'v1'] ['.txt']

For example: "CNF-MPShortName TT-P-F 20051231 v1.txt"

The file contains a confidential report,

It is the Transmitter Transmission Tariff Data File ('TT'),

It relates to the Physical Market,

It is related to the Final Settlement Statement Transmission Tariff Charges,

It relates to the month of December 2005,

As version is "1" this file is the original run for that date.

Each *Transmitter Transmission Tariff* Data file is composed of three sections:

- 1. The first of these sections is a header record providing information such as statement type and primary trading date.
- 2. The second section is a Summary Record providing details for each *delivery point* defined for transmission network charges or transmission *connection charges* that referenced in the Detail Record section. This section is provided for efficiency in data transfer for information that would otherwise be repeated for each detail record.
- 3. The third section is the detail record containing one month's data for each *delivery point* defined for transmission network charges or transmission *connection charges* to which the *transmitter* has been assigned as the TRAN.

The following describes each of the data fields in the *Transmitter Transmission Tariff* Data File. All data files are plain ASCII files with data fields delimited by the 'pipe' symbol (|). Two consecutive rows (or records) are separated by a carriage return.

3.1 Data File Header Record

This record will supply information that can be used to identify the contents of the *Transmitter Transmission Tariff* Data file.

Field	Туре	Max Field Length	Domain	Description
Record Type	Varchar	1	'H'	Indicates the type of record
Market Participant ID	Number	15	NNNNN	The <i>Transmitter - market participant</i> 's unique identifier
Primary Trading Date	Date	N/A	DD-MMM- YYYY	The specific trading date for which the statement is being created
File Type	Varchar	2	'TT'	Indicates the type of file as a Transmitter Transmission Tariff data file
Statement Type	Varchar	1	'P'	This will always be 'P' indicating that the data pertains to the <i>physical market</i> .
Settlement Type	Varchar	1	'P','F', 'R1', 'R2', 'R3', 'R4', 'R5', 'R6', 'RF'	Indicates the type of <i>settlement</i> set: preliminary or final.

3.2 Transmission Delivery Point Summary Records

These records provide details on a Per Trade Date basis for each *delivery point* defined for transmission network charges or transmission *connection charges* that is referenced in the Detail Records.

Field	Type	Max Field Length	Domain	Description
Record Type	Varchar	1	'S'	Indicates the type of record
Transmission Delivery Point ID	Number	12	NNNNN	The <i>delivery point</i> ID assigned by the IESO for transmission network charges or transmission <i>connection charges</i> . The establishment of such <i>delivery points</i> is subject to the meter point documentation provided by the <i>transmission customer</i> 's <i>MSP</i> subject to Chapter 10 of the IESO "Market Rules". The <i>delivery point</i> ID is a 6-character identifier.

Field	Туре	Max Field Length	Domain	Description
Trading Date	Date	N/A	DD-MMM- YYYY	The specific trading date of the hourly measurement
Transmission Delivery Point Type	Varchar	4	'TDPC' or 'TDPN'	Indicates whether the <i>delivery point</i> is classified as 'Network' or 'Connection'.
Line Connection Switch	Varchar	1	'Y'	Indicates that the <i>delivery point</i> defined for transmission <i>connection charges</i> has Line <i>Connection Charges</i> applicable. (Only relates to Transmission Connection <i>delivery points</i> . Will always be 'N' for Transmission Network Delivery Points.)
			'N'	Indicates that the <i>delivery point</i> defined for transmission <i>connection charges</i> does not have Line Connection Charges applicable. (Only relates to Transmission Connection <i>delivery points</i> . Will always be 'N' for Transmission Network Delivery Points.)
Transformation Connection Switch	Varchar	1	'Y'	Indicates that the <i>delivery point</i> defined for transmission <i>connection charges</i> has Transformation Connection Charges applicable. (Only relates to Transmission Connection Delivery Points. Will always be 'N' for Transmission Network Delivery Points.)
			'N'	Indicates that the <i>delivery point</i> defined for transmission <i>connection charges</i> does not have Transformation Connection Charges applicable. (Only relates to Transmission Connection Delivery Points. Will always be 'N' for Transmission Network Delivery Points.)
Transmission Customer – Short Name	Varchar	12		Transmission Customer Short Name related to the delivery point assigned by the IESO for transmission network charges or transmission connection charges.

Field	Туре	Max Field Length	Domain	Description
Transmitter – Short Name	Varchar	12		Transmitter Short Name related to the delivery point assigned by the IESO for transmission network charges or transmission connection charges.
Transmission Delivery Point Name	Varchar	32		The <i>delivery point</i> name assigned by the IESO for transmission network charges or transmission <i>connection charges</i> related to the <i>delivery point</i> ID.

3.3 Data File Detail Records

These records provide the details of each hourly measurement that was used in the determination of the Preliminary or Final *Transmission Tariff* billing *demands* for all *delivery point* defined for transmission network charges or transmission *connection charges* for which the *transmitter* has been associated as TRAN.

The file contains one month's data for each *delivery point* defined for transmission network charges or transmission connection charges up to the number of days that each market participant has been designated as the MMPT. Therefore each *delivery point* can have a maximum of 744 measurements in the file. (31 days by 24 hours per day per calendar month).

Field	Туре	Max Field Length	Domain	Description
Record Type	Varchar	1	'M'	Indicates a hourly measurement data record
Transmission Delivery Point ID	Number	12	NNNNN	The delivery point ID assigned by the IESO for transmission network charges or transmission connection charges. The establishment of such delivery points is subject to the meter point documentation provided by the transmission customer's MSP subject to Chapter 10 of the IESO "Market Rules". The delivery point ID is a 6-character identifier.
Trading Date	Date	N/A	DD-MMM- YYYY	The specific trading date of the hourly measurement
Trading Hour	Number	2	1-24	The specific hour of the hourly measurement

Field	Type	Max Field Length	Domain	Description
UOM	Varchar	1	'W'	Unit of Measurement for the hourly measurement data record as "W" – Megawatts.
Actual Estimate Indicator	Varchar	1	'A'	Indicates that the hourly measurement represents an actual measurement
			'E'	Indicates that the hourly measurement represents an estimated measurement
Injection Withdrawal Indicator	Varchar	ar 1	'I'	Indicates that the hourly measurement represents a net injection to the transmission grid in the hour
			'W'	Indicates that the hourly measurement represents a net withdrawal from the transmission grid in the hour
Hourly Measurement Quantity	Number	11,3		Indicates the hourly measurement quantity in MW
Update Date Time	Date / Time	N/A	YYYY-MM- DD-hh:mm:ss	Indicates the last date time that this measurement was reported from the Revenue Metering System. Time will be reported on a 24-hour clock.

End of Section –

References

Document Name	Doc ID
IESO, "Market Rules"	MDP_RUL_0002
Ontario Energy Board, "Interim Decision and Order" – December 17, 2001	This interim decision addresses four <i>OEB</i> docket numbers as follows
	RP-2001-0034
	RP-2001-0035
	RP-2001-0036
	RP-2000-0044

- End of Section -

- End of Document -