

11.6 FILING GUIDELINES FOR LOSS FACTORS, RETAIL TRANSMISSION SERVICE RATES AND LOAD PROFILE FOR STREET LIGHTING

11.6.1 SCHEDULE 1: Manager Summary

The manager summary is an overview of the application and should include:

- a list of delivery points connected to the transmission system;
- a list of delivery points connected to a host distributor;
- a list of delivery points supplying embedded distributors;
- an indication of which Method has been used in the determination of the Retail Transmission Service Rates (see 11.6.3, Schedule 3 below);
- an indication of whether line connection charges or transformation connection charges (or both) will apply;
- identification of all host distributors (include licence number);
- identification of all embedded distributors (include licence number);
- the number and capacity of known embedded generators connected to the distribution system (indicating whether they are “existing” or “new” embedded generation according to the Board’s Decision under RP-1999-0044);
- a description of the proposed treatment of the following:
 - the determination of coincidence factor for customer classes,
 - the treatment of load transfers, and
 - any assumptions made in the application.

If the proposed transmission rates are different from the results flowing from the methodologies contained in the Guidelines, the applicant must provide the rates using the model and the reasons/rationale for submitting a different set of rates.

Determination of Billing Demand

At the retail level, monthly demand values for interval metered General Service customers are determined currently on a rolling 15 minute (or 60 minute for large use customers) average demand. To calculate the transmission service rates that are charged on a per kW basis, Distributors may (but are not required) to use a “rolled” measurement for determining billing demand and for the establishment of the retail transmission service rates. **The Distributor should be aware that, as set out in the Retail Settlement Code (RSC), the competitive energy costs for consumers with interval meters at market opening will be based on “clock hour” measurements.**

11.6.2 SCHEDULE 2: Retail Settlement Code Loss Factors

An applicant is required to provide the results, all supporting calculations and assumptions on the parameters used in calculating all the applicable equations set out in section 3.2 of the RSC to calculate the following loss factors:

- Distribution Loss Factor,
- Supply Facilities Loss Factor, and
- Total Loss Factor.

Distribution Loss Factor

If an applicant is seeking Board approval for a distributor-specific value of the Primary Adjustment Factor (“PAF”) under Equation 3.2 (a) in the RSC, it is required to provide its proposal in this section.

If an applicant is seeking Board approval to use equation 3.2(d) in the RSC for certain secondary-metered customers, it is required to provide proof of the certified site-specific loss factor in this section.

If an applicant is seeking Board approval to estimate distribution system losses separately from Unaccounted For Energy, under section 3.2 of the RSC, it is required to provide its proposal in this section.

Supply Facilities Loss Factor (SFLF)

The applicant shall provide any specific assumptions made in energy supplied by the transmission system, retail embedded generators, or embedded wholesale market generators for Equation 3.2(e) of the RSC.

An applicant should calculate loss factors based on the best available data. However, should such data not be available, as default values, in the site-specific facilities loss component of Equation 3.2(e), a Distributor may use a value of 0.0045⁴ in the determination of the SSL_{dxPRWM}^s losses (i.e. $SSL_{dxPRWM}^s = E_{PRMW}^s * 0.0045$) and a value of 0.01⁵ in the determination of the SSL_{RMW} losses (i.e. $SSL_{RMW} = E_{RMW} * 0.01$).

⁴ This value is based on data used by Hydro One as part of RP-1999-004.

⁵ This value is based on a similar loss value to that of a large use customer.

Total Loss Factor (TLF)

The Total Loss Factor is determined by applying Equation 3.2(f), i.e. by multiplying the applicable Distribution Loss Factor by the Supply Facilities Loss Factor.

11.6.3 SCHEDULE 3: Retail Transmission Service Rates

Section 11.3.2 sets out different equations for estimating retail transmission service costs depending on whether the Distributor is supplied directly by the transmission system and/or through a Host Distributor. For the initial submission, however, a Distributor should treat **all** its delivery points (including embedded points) as being directly connected to the transmission system and use the wholesale transmission rates in calculating its retail transmission service costs.

Distributors should, therefore only apply Equations (11.1(a) and 11.1(b)) to determine their retail transmission costs for all delivery points (including embedded points) and not Equations (11.2(a) and 11.2(b)). This is different from the methodology set out in Section 11.3.2, and is intended to enable Distributors to derive initial rates so that Distributors with fully embedded delivery points can properly determine their rates in the next round of applications, using all relevant equations in Section 11.3.2. However, Distributors are still expected to maintain two separate cost pools for supply from the transmission system and from a host distributor, as set out in Section 11.3.2.2.

Two methods are provided for a Distributor to determine its retail transmission service costs. Method 1 assumes the Distributor has access to all required data. Method 2 recognizes that a Distributor may not have access to the interval data of all meters that contributed to its 1999 wholesale cost determination and therefore it will not be able to use the appropriate Billing Demands in estimating transmission costs as described in Method 1.

Method 2 makes use of the Distributor's 1999 wholesale power billing data in estimating retail transmission service costs. This data includes the Distributor's monthly peak and off-peak period demands and for each contributing metering point, the metering point's coincident demand with respect to the Distributor's monthly peak, and the peak and off- peak period demands.

Both methods will result in variances between the transmission service costs-and the retail transmission service revenue. These are recorded in the appropriate Retail Variance Accounts.

Method 1

Step One: Estimating retail transmission service costs

(a) for Network charges:

Provide a list of monthly demand in 1999 by delivery point (measured delivery point peak (7am to 7pm) and measured coincident peak demand at Transmission System Peak Time).

Provide a list of monthly billed demand in 1999 by delivery point (higher of either 85% of the delivery point peak demand 7am to 7pm or the transmission system coincident peak).

By delivery point, apply the monthly billed demand in 1999, adjusted by SFLF if applicable and by an estimate of the Host Distributor's Total Loss Factor (TLF_H) if an embedded delivery point, to the Network Service Rate of \$2.81 per kW to obtain the Total Network Service Costs (i.e. Equation 11.1(a)). If an estimate of the Host Distributor's Total Loss Factor is not available, a default value of 1.045⁶ (default Host TLF) may be used.

By delivery point, allocate Total Network Service Costs to the Distributor and any Embedded Distributors based on the higher of the Distributor's coincident peak demand or 85% of peak period demand and the higher of each Embedded Distributor's coincident peak demand or 85% of peak period demand times the Distributor's TLF.

The Distributor's Total Network Service Cost is obtained by summing the Distributor's Network Service Costs from each delivery point.

An Embedded Distributor's Total Network Service Cost is obtained by summing the respective Network Service Costs from each delivery point.

(b) for Connection charges:

Provide a list of monthly demand in 1999 by delivery point (peak demand at any time of the month)

⁶ This value is the average of the Utility Losses as reported in Ontario Hydro's Municipal Electric Utility Financial & Statistical Summary documents for 1993 to 1997.

Apply the monthly demand in 1999 by delivery point (adjusted by SFLF if applicable and by an estimate of the Host Distributor's Total Loss Factor (TLF_H) (or the default Host TLF of 1.045) if an embedded delivery point to the applicable Line Connection Service Rate of \$0.81 per kW and Transformation Connection Service Rate of \$1.48 per kW to obtain the Total Connection Service Costs (i.e. Equation 11.1(b)).

By delivery point, allocate the determined Total Connection Service Costs to the Distributor and Embedded Distributors based on the Distributor's peak demand and each Embedded Distributor's peak demands times the Distributor's TLF.

The Distributor's Total Connection Service Cost is obtained by summing the Distributor's Connection Service Costs from each delivery point.

An Embedded Distributor's Total Connection Service Cost is obtained by summing the respective Connection Service Costs from each delivery point.

Step Two: Cost allocation to customer classes⁷

(a) for Network charges cost pool:

Provide the higher of the class monthly demand in 1999 that is coincident with the monthly transmission system peak or 85% of the class Peak Period demand.

(b) for Connection charges cost pool:

Provide class monthly peak demand in 1999.

(c) Calculate the class allocated costs (network and connection)

Apply Equations 11.3(a) and (b).

The applicant should identify in this section whether it has used actual data or adopted the generic data for system coincident and distributor coincident class load factors in the RUD model, filed with the Distributors Distribution Unbundling Application, to do the allocation.

The applicant should set out specific assumptions on coincident factors for each customer class and the supporting reasons.

⁷ Method 2 class demands may also be used

Step Three: Calculating Retail Transmission Service Rates

Calculate class transmission service rates for the transmission network pool and the transmission connection pool by dividing the respective class allocated costs by the corresponding total charge determinant quantity (Equations 11.4 (a) & (b)).

Calculate Distributor transmission service rates chargeable to an Embedded Distributor for the transmission network pool and the transmission connection pool by dividing the respective allocated costs by the corresponding total charge determinant quantity (Equations 11.4 (a) & (b)).

Step Four: Draft Rate Schedule

Provide a draft rate schedule under this section. All relevant pricing information should be included.

OR

Method 2

Assumptions: 1. Distributor's system peaks at same time as Provincial Transmission Service Peak
2. Coincident demands with respect to the Distributor's monthly peak are used exclusively as the allocator of Transmission Service Costs between the Distributor and Embedded Distributors and between classes within a Distributor.

Step One: Estimating retail transmission service costs

(a) for Network charges:

Provide a list of 1999 monthly coincident peak demand for each contributing meter arranged by delivery point (directly connected and embedded).

For each directly connected delivery point, the Network Billing Demand is determined by multiplying the delivery point coincident demand determined from metering data by an estimate of the site specific loss factor (SSLF) where appropriate.

For each embedded delivery point, the Network Billing Demand is determined by multiplying the delivery point coincident demand determined from metering data by

an estimate of the Host Distributor's Total Loss Factor (TLF_H). If an estimate of the Host Distributor's Total Loss Factor is not available, a default value of 1.045⁸ (default Host TLF) may be used.

For each delivery point, determine each Embedded Distributor's Network Billing Demand by multiplying each Embedded Distributor's coincident demand determined from metering data adjusted for any site specific losses (the sum of coincident demands when two or more meters) multiplied by the Distributor's total loss factor (TLF).

For each delivery point, determine the Distributor's Network Service Cost and Embedded Distributor's Network Service Costs by applying the Network Service Rate of \$2.81 per kW to the Network Billing Demand and the Embedded Distributor's Billing Demand.

For each delivery point, the Distributor's Network Service Cost are determined by subtracting the Embedded Distributor's Network Service Costs from the Total Network Service Cost.

The Distributor's Total Network Service Cost is obtained by summing the Distributor's Network Service Costs from each delivery point.

An Embedded Distributor's Total Network Service Cost is obtained by summing the respective Network Service Costs from each delivery point.

(b) for Connection charges:

Provide a list of monthly peak demand in 1999 by delivery point (peak demand at any time of the month). The Distributor will estimate these demands when they cannot be determined from available Wholesale Power Billing Data.

For each directly connected delivery point, the Connection Billing Demand is determined by multiplying the delivery point monthly peak demand by an estimate of the site specific loss factor (SSLF) where appropriate.

For each embedded delivery point, the Connection Billing Demand is determined by multiplying the delivery point monthly peak demand by an estimate of the Host Distributor's Total Loss Factor (TLF_H) (or the default Host TLF of 1.045).

⁸ This value is the average of the Utility Losses as reported in Ontario Hydro's Municipal Electric Utility Financial & Statistical Summary documents for 1993 to 1997.

For each delivery point, determine the Connection Service Cost by applying the applicable Line Connection Service Rate of \$0.81 per kW and Transformation Connection Service Rate of \$1.48 per kW to the Connection Billing Demand.

For each delivery point, allocate the Connection Service cost to the Distributor and the Embedded Distributors in the same proportions as the Network Service Charges.

The Distributor's Total Connection Service Cost is obtained by summing the Distributor's Connection Service Costs from each delivery point.

An Embedded Distributor's Total Connection Service Cost is obtained by summing the respective Connection Service Costs from each delivery point.

Step Two: Cost allocation to customer classes

(a) for Network charges cost pool:

Provide class monthly demand in 1999 that is coincident with the Distributor's monthly system peak

(b) for Connection charges cost pool:

Provide class monthly demand in 1999 that is coincident with the Distributor's monthly peak

(c) Calculate the class allocated costs (network and connection)

Apply Equations 11.3(a) & (b).

The applicant should identify in this section whether it has used actual data or adopted the generic data for system coincident and distributor coincident class load factors in the RUD model to do the allocation.

The applicant should set out specific assumptions on coincident factors for each customer class and the supporting reasons.

Step Three: Calculating Retail Transmission Service Rates

Calculate class transmission service rates for the transmission network pool and the transmission connection pool by dividing the respective class allocated costs by the

total charge determinant quantity (Equations 11.4 (a) & (b)).

Calculate Distributor transmission service rates chargeable to an Embedded Distributor for the transmission network pool and the transmission connection pool by dividing the respective allocated costs by the corresponding total charge determinant quantity (Equations 11.4 (a) & (b)).

Step Four: Draft Rate Schedule

Provide a draft rate schedule under this section. All relevant pricing information should be included.

11.6.4 SCHEDULE 4: Street Lighting Load Profile

The street lighting load is the only load without interval metering that will require a Board approved hourly load profile, as set out in Section 3.10 of the Retail Settlement Code. As a result, estimation of a profile is required.

The Board will be establishing a deemed load profile, based on a combination of actual Distributor data and historical information. One of the assumptions that will be made is that the street lighting load will be either all on or all off.

A Distributor must state its option of using the deemed load profile or its own specific profile data.

As part of the Distribution Rate Application, the connected loads and estimated energy statistics for street lighting were provided. In order to complete the load profile, an indication of when the street lights are on must also be made. If a Distributor wishes to use its own specific profile data, it must include an indication of when the street lights will be in operation for each day in the year and the percentage of the total street lighting load that is in operation. In addition, the bases and assumptions used to develop the set of data must be provided.