Applicability
1 This section applies to a market participant who has requested or is receiving system access service under:
   (a) Demand Transmission Service Rate DTS;
   (b) Primary Service Credit Rate PSC; or
   (c) Supply Transmission Service Rate STS.

Connection Costs
2 The costs of a connection project for a market participant will be those costs reasonably associated with facilities that:
   (a) an owner of a transmission facility will own and operate;
   (b) are required to:
      (i) provide system access service to a new point of delivery or point of supply; or
      (ii) increase the capacity of or improve system access service to an existing point of delivery or point of supply; and
   (c) are reasonably required to meet the market participant’s:
      (i) demand and supply forecast; and
      (ii) reliability and operating requirements.

Classification of Participant-Related and System-Related Costs
3(1) All costs of a connection project will be classified as either participant-related or system-related.
(2) Participant-related costs will be those costs related to a contiguous connection project including costs associated with:
   (a) the connection substation for the point of delivery or point of supply, including in out line configurations, where required;
   (b) new radial transmission lines, including double-radial configurations, with only one (1) transmission source from the transmission system to the connection substation;
   (c) a share of existing transmission facilities that were constructed to connect another market participant, where the existing facilities originally began commercial operation within the past twenty (20) years and where the share is determined in accordance with subsection 3 of section 9 of the ISO tariff;
   (d) line moves or burials of existing transmission line;
   (e) communication at the point of delivery or point of supply;
(f) communication enhancements required at the nearest substation with communications equipment to allow direct communication between it and the connection substation;

(g) breakers and associated equipment required for the connection of the new radial transmission line to an existing substation;

(h) salvage labour required to remove existing transmission facilities to allow the installation of new or replacement facilities for a connection project, except where the cost of the removed facilities is treated as a capital maintenance cost by the owner of the transmission facility;

(i) changes to protection systems, equipment or settings related to the addition of a generating unit on an electric distribution system served through the connection substation;

(j) a remedial action scheme, if required;

(k) a phasor measurement unit, if required;

(l) the advancement of transmission facilities included as part of a critical transmission development or regional transmission system project under subsection 3(3)(b) below, calculated as the difference between the present values of the capital costs of the advanced and the as-planned facilities using the discount rate provided in subsection 11 below;

(m) facilities previously classified as system-related under subsection 3(3)(c) below and now reclassified as participant-related to meet the requirements of the connection project; and

(n) other facilities required to complete the market participant’s connection, including transmission facilities required to enable the market participant to meet all relevant technical requirements for the connection project.

(3) System-related costs will be those costs related to a connection project including non contiguous components of the project and any costs associated with:

(a) looped transmission facilities, which are facilities that increase the number of electrical paths between any two (2) substations, excluding the substation serving the market participant and which exclude any new radial transmission line;

(b) radial transmission facilities which, within five (5) years of commercial operation, are planned to become looped as part of a critical transmission development or regional transmission system project:
   (i) in the ISO’s most recent long-term transmission system plan;
   (ii) in a needs identification document filed with the Commission; or
   (iii) as the ISO reasonably expects will be required in the future; and

(c) transmission facilities in excess of the minimum size required to serve the market participant where, in the opinion of the ISO, economics or system planning support the development of such facilities.

Facilities in Excess of Good Electric Industry Practice

4 A market participant must pay, as part of the construction contribution, any participant-related costs of facilities which are deemed, in the opinion of the ISO, to be in excess of those required by good electric industry practice.
Valuation of Facilities for Contribution Determination

5(1) When calculating costs, equipment used for a connection project will generally be valued at the replacement cost new which is the current cost of similar new equipment having the nearest equivalent capability to the equipment being valued.

(2) Where a connection project involves the installation of a transformer that replaces a smaller transformer which was removed from service at a substation, the participant-related costs for the connection project:

(a) will be reduced by the replacement cost new of the removed transformer when the owner of the transmission facility either:
   (i) deems the transformer which is removed to be re-deployable for use at another substation or suitable for use as an operating spare; or
   (ii) treats the cost of the transformer which is removed as a capital maintenance cost; or

(b) subject to subsection 5(2)(a) above, will not be reduced in any other circumstances including when the owner of the transmission facility scraps the transformer which is removed without treating its cost as a capital maintenance cost.

Allocation of Costs to Market Participants

6(1) The balance of participant-related costs remaining after:

(a) the exclusion of costs, if any, under subsection 4 above reflecting facilities in excess of those required by good electric industry practice; and

(b) the reduction of costs, if any, under subsection 5 above reflecting replacement of a transformer removed from service;

will be allocated to the market participant at the substation at which system access service is provided.

(2) Where facilities are used to provide system access services, which may be solely under Rate DTS, solely under Rate STS or under a combination of both, to more than one market participant at a single substation, the balance of participant-related costs identified in subsection 6(1) will be allocated among those market participants.

(3) The balance of participant-related costs referred to in subsections 6(1) and 6(2) above will be allocated to each market participant by multiplying those costs by the average substation fraction for the market participant determined in accordance with subsection 3(3) of section 9 of the ISO tariff.

(4) Costs allocated to a market participant taking service under Rate DTS are deemed to be demand-related costs.

(5) Costs allocated to a market participant taking service under Rate STS are deemed to be supply-related costs.

Determination of Construction Contribution

7(1) The construction contribution will be calculated in accordance with the construction contribution provisions of the ISO tariff in effect on the date on which the Commission issues permit and licence for the connection project.
A market participant must pay construction contribution amounts to the owner of the transmission facility in accordance with the financial obligation provisions of section 5 of the ISO tariff.

For a market participant receiving service under Rate DTS, the construction contribution is calculated as the demand-related costs less the local investment determined under subsection 8 below.

For a market participant receiving service under Rate STS, the construction contribution is equal to the supply-related costs.

In addition, a market participant receiving service under Rate STS must pay the ISO any owner’s contribution for a generating unit required under section 10 of the ISO tariff.

### Determination of Local Investment

8(1) For a market participant taking service under Rate DTS, or under Rate DTS with Rate PSC, the maximum local investment will be based on the contract capacity and investment term set out in the system access service agreement for the connection project.

(2) The contract capacity used for the local investment calculation must not include any contract capacity transferred from another point of delivery.

(3) The investment term must be from five (5) to twenty (20) years inclusive, commencing on the date of commercial operation.

(4) For a connection project for a new point of delivery, the maximum local investment amount will be the sum of the annual amounts calculated for each year in the investment term by adding the products of the values from each of rows (c) through (g) of the table below, where the product for a row is calculated by multiplying:

(a) the substation fraction or contract capacity, as applicable, from column A; and

(b) the investment amounts from column B or column C, as applicable.

<table>
<thead>
<tr>
<th>Column A</th>
<th>Column B</th>
<th>Column C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tier</td>
<td>Investment for Service Under Rate DTS</td>
<td>Investment for Service Under Rate DTS with Rate PSC</td>
</tr>
<tr>
<td>(c) Substation fraction (for new points of delivery only)</td>
<td>$29 250/year</td>
<td>$6 140/year</td>
</tr>
<tr>
<td>(d) First (7.5 × substation fraction) MW of contract capacity</td>
<td>$52 600/MW/year</td>
<td>$11 045/MW/year</td>
</tr>
<tr>
<td>(e) Next (9.5 × substation fraction) MW of contract capacity</td>
<td>$27 150/MW/year</td>
<td>$5 700/MW/year</td>
</tr>
<tr>
<td>(f) Next (23 × substation fraction) MW of contract capacity</td>
<td>$19 100/MW/year</td>
<td>$4 010/MW/year</td>
</tr>
<tr>
<td>(g) All remaining MW of contract capacity</td>
<td>$12 450/MW/year</td>
<td>$0/MW/year</td>
</tr>
</tbody>
</table>
(5) For a connection project at an existing point of delivery to accommodate a contract capacity increase:

(a) the contract capacity used for the local investment calculation will be the incremental contract capacity since the most recent change in construction contribution at the point of delivery;

(b) the substation fraction will be calculated based on contract capacities after the increase;

(c) the existing contract capacity establishes the tier in which investment will become available for the incremental contract capacity; and

(d) where the sum of existing and incremental contract capacities exceeds the remaining MW in the tier, investment will become available from subsequent tiers, as appropriate.

(6) If a market participant includes increases or decreases to contract capacity over the investment term for a connection project, the local investment will be the sum of the investment for each incremental amount of contract capacity, which will be:

(a) calculated in accordance with subsections 8(4) and 8(5) above, based on each increment of contract capacity and the years for which each increment is contracted, and

(b) discounted from the beginning of the first month in which the increment of contract capacity exists back to the date of commercial operation of the connection project, using the discount rate provided in subsection 11 below.

(7) The maximum local investment calculated in subsection 8(4), 8(5), or 8(6) above will not exceed the demand-related costs.

Operations and Maintenance

9(1) A market participant taking service under Rate DTS must pay, as part of the construction contribution, an operations and maintenance charge that will be added to any participant-related costs of facilities which are deemed to be in excess of those required by good electric industry practice in subsection 4 above.

(2) The operations and maintenance charge will be estimated by the market participant and agreed to by the ISO:

(a) as the present value of the full incremental maintenance cost, incremental operations cost, and overheads associated with the operations and maintenance of the facilities which are deemed to be in excess of those required by good electric industry practice,

(b) over the useful life of those facilities or twenty (20) years, whichever is less.

(3) The discount rate used in the present value calculation will be that provided in subsection 11 below.

Limitations

10 The ISO will have discretion in the application of the construction contribution provisions in the ISO tariff, including the determination of costs to be system-related in certain circumstances that might, under strict application of the construction contribution provisions, have been classified as participant-related.
Discount Rate

11(1) The discount rate applicable to the calculation of construction contributions under this section 8 of the ISO tariff and payments in lieu of notice under section 9 of the ISO tariff will be determined as:

\[
\text{discount rate} = \left[ (1 - E) \times (YLD + 1\%) \right] + \left( \frac{E \times ROE}{1 - T} \right)
\]

where:

(a) \( E \) is equal to the Commission-approved equity ratio applicable to the owner of transmission facilities, as amended from time to time;

(b) \( YLD \) is equal to the yield on 30-year Government of Canada bonds;

(c) \( ROE \) is equal to the Commission-approved rate of return on equity applicable to the owner of the transmission facilities, as amended from time to time; and

(d) \( T \) is equal to the combined federal and provincial income tax rate applicable to the owner of the transmission facilities.

2(2) Where an owner of transmission facilities does not pay income tax, including a non-income tax paying municipal owner of transmission facilities, the tax rate \( T \) used in subsection 11(1) above will be equal to zero (0).

Miscellaneous

12(1) Where transmission facilities must be relocated, the ISO will make reasonable efforts to ensure that the party causing the relocation pays all reasonable costs associated with the relocation.

2(2) Where new facilities between adjacent balancing authority areas are required, the cost of such facilities will be shared between the ISO and the party responsible for costs in the other balancing authority area based on the extent to which each benefits directly from the facilities.

Revision History

<table>
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<tr>
<th>Effective Date</th>
<th>Description</th>
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<tr>
<td>2011-07-01</td>
<td>Revised and reformatted all subsections, as approved in Commission Decision 2011-275 issued on June 24, 2011.</td>
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