Terms and Conditions

Section 8  Construction Contributions for Connection Projects
Section 9  Changes to System Access Service After Energization

Effective Dates

1(1) The following sections 8 and 9 of the ISO tariff, when approved by the Commission, are effective from January 1, 2010 to March 31, 2011.

(2) These sections comprise the construction contribution provisions in effect during that period, and supersede the contribution provisions in Articles 9.1 through 9.10 and 9.13 through 9.15 in the ISO tariff that became effective on August 1, 2008.

(3) All other provisions of the existing ISO tariff remain in full force and effect from January 1, 2010 to March 31, 2011.

(4) In the event of any conflict between another provision of the ISO tariff in effect from January 1, 2010 to March 31, 2011 and these sections 8 and 9, the provisions in these sections 8 and 9 govern.

(5) Under subsection 9 of this section 8 and under the previous Article 9.13, the ISO has discretion in the application of the construction contribution provisions in the ISO tariff and may reasonably exercise that discretion in circumstances not otherwise clearly addressed in these section 8 and 9.

(6) Words and phrases in bold type in these sections 8 and 9 have the meanings given to them in the definitions which became effective April 1, 2011 and which are found in the Consolidated Authoritative Documents Glossary.

(7) Other guidelines for the applicability and interpretation of these sections 8 and 9 can be found in section 1 of the ISO tariff which became effective April 1, 2011.
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.

(2) 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.

(3) 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.

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

(5) 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.
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>$51 050/year</td>
<td>$10 720/year</td>
</tr>
<tr>
<td>(d) First (7.5 × substation fraction) MW of contract capacity</td>
<td>$34 650/MW/year</td>
<td>$7 275/MW/year</td>
</tr>
<tr>
<td>(e) Next (9.5 × substation fraction) MW of contract capacity</td>
<td>$12 800/MW/year</td>
<td>$2 690/MW/year</td>
</tr>
<tr>
<td>(f) Next (23 × substation fraction) MW of contract capacity</td>
<td>$7 750/MW/year</td>
<td>$1 630/MW/year</td>
</tr>
<tr>
<td>(g) All remaining MW of contract capacity</td>
<td>$4 200/MW/year</td>
<td>$0/MW/year</td>
</tr>
</tbody>
</table>

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:

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

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) 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) 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

Effective Description

2011-02-06 Filed in compliance with Decision 2010-606.
ISO Tariff – Section 9
Changes to System Access Service After Energization

Applicability

1. This section applies to a market participant who 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.

Events Resulting in Adjustments to Construction Contributions

2(1) The ISO may decide that certain events warrant an adjustment to the construction contribution that had previously been determined by application of the ISO’s construction contribution provisions to a connection project.

(2) Events which may result in construction contribution adjustments include:
   (a) a market participant materially increasing or decreasing contract capacity or investment term or terminating system access service, prior to the expiry of the investment term for a connection project;
   (b) one or more additional market participants using facilities originally installed for any existing market participant, resulting in sharing of facilities as provided for in subsection 3 below;
   (c) facilities previously classified as system-related being reclassified as participant-related to meet changes in market participant requirements;
   (d) facilities previously classified as participant-related being reclassified as system-related;
   (e) a material error in the original construction contribution determination;
   (f) a material variance in the estimated or actual cost of the connection project compared to the original estimate; or
   (g) a material reduction to the period of advancement of transmission facilities included as part of a critical transmission development or regional transmission system project under the provisions of subsection 3(2)(k) of section 8 of the ISO tariff.

(3) The market participant, the ISO or the owner of the transmission facilities may initiate a determination of an adjustment to a construction contribution as a result of an event described in subsection 2(2) above.

(4) No adjustments to construction contribution will be made more than twenty (20) years after commercial operation of a connection project.
Where an event requires the addition of new equipment at an existing point of delivery or point of supply, the construction contribution will be determined under the provisions of section 8 of the ISO tariff rather than this section 9.

Shared Facilities

If transmission facilities are constructed to serve a market participant and then used to serve other market participants within twenty (20) years after commercial operation of the original connection project, the participant-related costs of the shared transmission facilities will be allocated to market participants by:

(a) first, where transmission line is shared by two or more substations, allocating the costs of the shared line to those substations in accordance with subsection 3(2) below; and

(b) second, where a single substation is shared by two or more market participants, allocating the shared costs associated with the substation to those market participants in accordance with subsection 3(3) below.

Where transmission line is shared by two or more substations, the participant-related cost of the shared line will be allocated to the substations by:

(a) determining the higher of the sum of all Rate DTS contract capacities or the sum of all Rate STS contract capacities for each substation in each of the twenty (20) years following commercial operation of the original transmission line, assigning a contract capacity of zero (0) in any year in which a substation did not exist;

(b) calculating the percentage share of the transmission line attributable to each substation by dividing the contract capacity determined in subsection 3(2)(a) above for the substation in a year by the sum of contract capacities determined for all sharing substations in that year;

(c) calculating the average percentage share over the full twenty (20) year period for each substation; and

(d) multiplying the cost of the shared transmission line by the average percentage share determined for each substation.

Where system access services are provided to more than one market participant at a single substation, the participant-related cost of shared transmission facilities will be allocated to the market participants at the substation by:

(a) determining the substation fraction for each market participant in each of the twenty (20) years following commercial operation of the original connection project, assigning a contract capacity of zero (0) in any year in which a market participant did not receive system access service;
(b) calculating the average substation fraction over the full twenty (20) year period for each market participant; and

(c) multiplying the cost of the shared transmission facilities by the average substation fraction determined for each market participant.

(4) The allocation of costs of shared transmission facilities under subsections 3(1), 3(2), and 3(3) above:

(a) will reduce the participant-related costs allocated to the original market participant; and

(b) may result in a refund under subsection 4 below, where applicable, in part or in full, of a construction contribution previously paid by that market participant.

(5) The allocation of costs of shared transmission facilities under subsections 3(1), 3(2), and 3(3) above:

(a) will be included in the determination of participant related costs for the additional market participants under subsection 3(2)(c) of section 8 of the ISO tariff; and

(b) may result in construction contributions being assessed to the additional market participants under section 8 of the ISO tariff.

Determination of Construction Contribution

4(1) For an adjustment to a construction contribution paid for a connection project, the adjustment will be determined in accordance with the construction contribution provisions described in the ISO tariff as applied to the transmission facilities when constructed.

(2) The ISO will determine the amount of any adjustments to construction contributions.

(3) The market participant will pay any resulting increase in construction contribution to the owner of the transmission facilities and the owner of the transmission facilities will refund any resulting decrease in customer contribution to the market participant.

(4) Adjustments are charged or refunded without interest.

(5) Adjustments will be neither charged nor refunded for amounts less than $10 000.

Notices for Reductions or Terminations of Contract Capacity

5(1) Subject to subsection 5(2) below, reductions or terminations of contract capacity will be effective five (5) years after the date of the request for reduction or termination.

(2) A market participant reducing or terminating contract capacity may choose to make a lump sum payment determined by the ISO in lieu of all or a portion of the 5-year notice period in subsection 5(1) above.
The payment in lieu of notice will represent a share of system costs potentially incurred to reasonably accommodate the contract capacity of a market participant over the 5-year planning horizon of the transmission system and will be:

(a) for any market participant reducing or terminating contract capacity under Rate DTS, the present value of the difference in bulk system and local system charges which would be attributed to the service with and without the reduction or termination of contract capacity during the notice period; or

(b) for any market participant terminating contract capacity under Rate STS for a regulated generating unit listed in Appendix A of the ISO tariff, the difference in regulated generating unit connection cost charges which would be attributable to the service with and without the termination of the service during the notice period.

The discount rate used in the present value calculation will be that provided in subsection 11 of section 8 of the ISO tariff.

A market participant may make a payment in lieu of notice at any time prior to or during the 5-year notice period, for the remainder of the notice period and the ISO must receive such payment at least thirty (30) days before the reduction or termination of contract capacity is effective.

If the ISO considers that circumstances warrant, the ISO may waive or reduce the requirement for payment in lieu of notice where:

(a) contract capacity is transferred to a system access service of the same market participant at a nearby transmission substation; or

(b) transmission system benefits arise from the reduction or termination of contract capacity, which benefits may include relief of regional transmission constraints, removal of capacity limitations which would restrict system access service to other market participants or avoidance of future upgrades to the transmission system.

At any time during the remainder of a notice period for which a payment in lieu of notice was made, the ISO may re-assess the payment in lieu of notice if material differences arise between the requested and actual contract capacities or between expected and actual load and require additional payment from the market participant if appropriate.

Metered Demand Above Pre-Notice Contract Capacity

The contract capacity immediately following the 5-year notice period required by subsection 5(1) above will be the maximum of:

(a) the pre-notice contract capacity less the reduction of contract capacity the market participant requested; or
(b) the highest metered demand during the 5-year notice period less the reduction of contract capacity the market participant requested.

(2) If the highest metered demand affects the maximum determined under subsection 6(1) above, a market participant may provide an additional notice of reduction to request a subsequent reduction of contract capacity to the original notice level.

Payments

7(1) A market participant must satisfy a request for payment of a construction contribution adjustment or a payment in lieu of notice within thirty (30) calendar days of such request.

(2) The market participant must make payment by way of electronic funds transfer or wire transfer to the bank account:

(a) the owner of the transmission facilities specifies, for a construction contribution adjustment; or

(b) the ISO specifies, for a payment in lieu of notice.

Revision History

Effective Description

2011-02-06 Filed in compliance with Decision 2010-606.