

Information documents are not authoritative. Information documents are for information purposes only and are intended to provide guidance. If there is a discrepancy between an information document and any authoritative document<sup>1</sup> in effect, the authoritative document governs.

## 1 Purpose

This information document relates to the following authoritative documents:

- Section 6 of the ISO tariff, *Financial Obligations for Connection Projects* and predecessor documents (“Section 6 of the ISO tariff”);<sup>2</sup>
- Section 4 of the ISO tariff, *Classification and Allocation of Connection Projects Costs* and predecessor documents (“Section 4 of the ISO tariff”); and
- Section 5 of the ISO tariff, *Changes to System Access Service* and predecessor documents (“Section 5 of the ISO tariff”).

The purpose of this information document is to provide market participants with a tool to calculate their construction contribution for system access service provided under Rate DTS and under Rate STS. This information document consists of 2 parts: this document and information document ID #2023-016T, *ISO Tariff - Contribution Calculator, Appendix 1 – Contribution Calculator Excel Workbook* (“Appendix 1”).<sup>3</sup>

## 2 Completing the Contribution Calculator

### 2.1 General Information

The contribution calculator provided in Appendix 1 is an optional tool that a market participant may use to determine the construction contribution for its project. This section of the information document outlines instructions for market participants that choose to use this tool and, where applicable, information to assist the market participant in determining the appropriate values to enter.

In Appendix 1, enter values in the cells highlighted in yellow only in the *A1 - Costs and Contract* worksheet in Appendix 1 (“*A1 Costs and Contract* sheet”). The calculator will use these values to determine a construction contribution.

The AESO has provided messages, related to the project identification and calculation preparation, in many of the cells where values are entered. When the market participant enters values into these cells, it will replace the default text.

In cells that relate to the contract stages and capacities, cells related to shared facilities are hatched and will open to entry only when applicable entries are made by the market participant.

Entering certain combinations of cell values may cause an error message to appear to the right of the printable area of the *A1 Costs and Contract* sheet. An error message generally indicates how the error can be corrected. Related cells are highlighted in red for most error messages.

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<sup>1</sup> “Authoritative document” 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 associated regulations, and that contain binding legal requirements for either market participants or the AESO, or both. Authoritative documents include: the ISO rules, the reliability standards, and the ISO tariff.

<sup>2</sup> ISO tariff section names and numbers provided are based on the 2021 ISO tariff and may differ from previous ISO tariffs.

<sup>3</sup> Available on the AESO website.

## 2.2 Applicable ISO tariff

Construction contribution provisions are set out in Section 4 of the 2021 ISO tariff.<sup>4</sup> In accordance with subsection 4.6(1) of Section 4 of the 2021 ISO tariff, the construction contribution provisions that apply to a project are those in effect on the date on which a market participant executes a *System Access Service Agreement*.<sup>5</sup> Prior to January 1, 2021, as set out in previous construction contribution sections of the ISO tariffs, the construction contribution provisions that applied to a project were those in effect on the date which the Alberta Utilities Commission issued the market participant a permit and licence for its connection project.

In the calculator, the market participant selects the appropriate ISO tariff from the dropdown menu on cell "I10" of *A1 Costs and Contract* sheet and which is shown in cell "I11" and confirms that the correct ISO tariff was selected by ensuring that the effective date of the ISO tariff aligns with the date either the *System Access Service Agreement* was executed, or its project was issued a permit and licence from the Alberta Utilities Commission. The contribution calculator values will change based on this input.

## 2.3 Project Details

The market participant provides relevant project details by making the applicable choices in rows (a), (b), (c), and (d) of the *A1 Costs and Contract* sheet. The choices selected in these cells affect other input cells on the *A1 Costs and Contract* sheet as well as calculations on other Appendix 1 worksheets.

## 2.4 Cost of Connection Project

The market participant enters all amounts for the cost of the connection project, rounded to the nearest dollar, rather than millions of dollars, in rows (e) to (o) of the *A1 Costs and Contract* sheet.

If the connection project includes the use of one or more existing transmission facility that is used by another market participant, pursuant to subsection 4.2(2) of Section 4 of the ISO tariff, the market participant enters its share of the cost of the transmission facility in row (i) of the *A1 Costs and Contract* sheet.

If a transformer is being installed to replace a smaller transformer which will be removed, the replacement cost new of the removed transformer, is entered in row (m) of the *A1 Costs and Contract* sheet, in accordance with subsection 4.4 of Section 4 of the ISO tariff.

## 2.5 Contract Details

The market participant enters the following connection project activity dates: the date the AESO and market participant executed the *System Access Service Agreement*, the date the Alberta Utilities Commission issued one or more permit and licence, the date the AESO issued the energization authorization, and the date which commercial operation started in rows (p), (q), (r), and (s) of the *A1 Costs and Contract* sheet, respectively. The commercial operation date is the date upon which a load, generating unit or aggregated generating facility begins to operate after energization and commissioning.

The market participant enters the project investment term in row (t) of the *A1 Costs and Contract* sheet. Pursuant to subsection 4.7(1) of Section 4 of the ISO tariff, the maximum investment term for connection projects is 20 years. The AESO expects the market participant will select 20 years unless it intends to cease operations after a shorter period of time.

The market participant enters the discount rate in row (u) of the *A1 Costs and Contract* sheet if more than one contract stage exists for the project. More than one contract stage exists when changes to contract capacity occur after the project begins commercial operation. The discount rate is determined in accordance with subsection 4.9 of Section 4 of the ISO tariff and is set out in information document

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<sup>4</sup> Subsection references provided in this information document align to the 2021 ISO tariff. Subsection references may differ in previous versions of the ISO tariff.

<sup>5</sup> System Access Service Agreement Proformas are available on the AESO website.

#2011-005T, *Discount Rates for ISO Tariff*.<sup>6</sup> The market participant enters the discount rate that is in effect when the Alberta Utilities Commission issues a permit and licence for the connection project. If the Alberta Utilities Commission has not yet issued a permit and licence for the project, the market participant may use the most recent rate available.

## 2.6 Contract Stages and Capacities Table

In the contract stages and capacities table, row (w) of *A1 Costs and Contract* sheet, the market participant enters Rate STS and Rate DTS contract capacities at the substation, as stated in the *System Access Service Agreement*, as total capacity, not incremental capacity. For example, if a market participant is expected to have 2 contract stages with an initial Rate DTS contract capacity of 20 MW in Stage 1 and an increase of 10 MW in Stage 2, then the market participant enters a Rate DTS contract capacity of 20 MW in Stage 1 and 30 MW in Stage 2.

## 3 Contribution and Additional Calculations

After the market participant enters and selects all relevant values on the *A1 Costs and Contract* sheet, the contribution calculation results are calculated and summarized on the *A2 Contribution* worksheet in Appendix 1 ("*A2 Contribution* sheet"). Additional information on calculations used for the contribution results are provided on the *A3 Allocation and Fractions* worksheet in Appendix 1 ("*A3 Allocation and Fractions* sheet") and the *A4 Investment* worksheet in Appendix 1 ("*A4 Investment Determination* sheet").

In particular, the investment term that is required to minimize the construction contribution is provided at the bottom of the *A4 Investment* sheet, including start and end dates. The investment term is also provided in row (t) of the *A1 Cost and Contract* sheet.

The *A1 Costs and Contract*, *A2 Contribution*, *A3 Allocation and Fractions*, and *A4 Investment Determination* sheets are set up for printing, each as a single letter-size page.

## 4 Additional Detail

A summary of the monthly investment calculations is provided in the *Discounted Increments* worksheet and the *Nominal Increments* worksheets found in Appendix 1.

In addition, the monthly investment calculations are provided for each contract stage on the *Stage (1) to Stage (10) Investment* worksheets found in Appendix 1. For all incremental contract capacities after Stage 1, the calculator determines the nominal investment based on the capacity and years for each contract capacity increment as set out in subsection 4.7(4)(a). Discounted investment is then calculated back to the date of commercial operation in accordance with subsection 4.7(4)(b) of Section 4 of the ISO tariff.

## Appendix

[Appendix 1 - Contribution Calculator Excel Workbook](#)

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<sup>6</sup> Available on the AESO website.

#### Revision History

Posting Date	Description of Change
2023-01-10	Updated Appendix 1 to include investment rates for 2023.
2022-06-03	Removed paragraphs referring to previous contribution amounts made from Section 2.5 and row (v) in tab A1 of Appendix 1 to align with the current CCD process.
2021-01-12	Updated Appendix 1 to include investment rates for 2022.
2021-10-20	Administrative update to separate excel workbook from information document content. Revisions to information document content to align content to current AESO drafting principles, including adding references to the ISO tariff subsections. Update to Appendix 1 that sets the substation fraction to 1 when the project relates to a substation owned by a legal owner of an electric distribution system, in alignment with AUC Decision 25848-D01-2020.
2021-01-01	Initial release.