Appendix A:
Economic Evaluation Model and Capital Contribution Policy For New or Upgraded Connections

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Policy Statement

Connections of new customers and/or additional loads to Kingston Hydro's existing distribution system may create requirements to expand the distribution system. Customers responsible for contributing towards uneconomic expansion of the distribution system must be responsible for the costs of providing additional capacity through distribution system expansions.

Where an expansion is required to allow for the connection, Kingston Hydro will perform an Economic Evaluation to determine whether the present value of the future revenues for the connection will pay for the capital investment and on-going maintenance of the expansion. Should the economic evaluation identify a revenue shortfall for the expansion, Kingston Hydro will require the customer to provide a capital contribution, thereby ensuring that existing customers will not bear the burden of subsidizing the connection of new customers.

The requirement of capital contributions from customers when new or upgraded connections result in a financial loss to Kingston Hydro safeguards the financial and operational sustainability of the electricity distribution system while providing all customers who wish to connect to the electricity distribution system the opportunity to do so on a "user-pay" basis.

The amount of the capital contribution required from the customer for a given connection shall be calculated using the Economic Evaluation process described below.

Definitions

For further information, please refer to section 3 of the Distribution System Code.

- **Capital Contribution**

  An amount paid up front by a new or expanded customer when an economic evaluation determines that the forecasted revenue of the requested connection does not cover the expected cost of upgrading or expanding and maintaining the distribution system to allow for such a connection.

- **Connection Charges**

  Charges to a customer to cover the work required for connection of the electricity service or distribution system expansion to Kingston Hydro's existing distribution system. These charges can vary with the customer's projected rate class and/or

connection voltage. These charges are not included in a customer's economic evaluation.

- **Connection Horizon**

  A period of time, one (1) to fifteen (15) years in length, over which the new customer is expected to connect all new load to Kingston Hydro's distribution system. A request in writing to Utilities Kingston is required for qualifying housing developments requesting to extend the connection horizon beyond the usual five (5) years.

- **Economic Evaluation**

  A process by which the new customer's electrical loads are analyzed to determine the amount (if any) of their capital contribution. Kingston Hydro's Economic Evaluation is based on the new customer's specific electrical load forecast and revenue characteristics and a contributed capital model that is updated to reflect most current distribution rates and assumptions available.

- **Expansion**

  A modification or addition to the main distribution system in response to one or more requests for one or more additional customer connections that otherwise could not be made, for example, by increasing the length of the main distribution system, and includes the modifications or additions to the main distribution system identified in section 3.2 (Ontario Energy Board Distribution System Code) but in respect of a renewable energy generation facility excludes a renewable enabling improvement. Costs associated with Expansions include but are not necessarily limited to:

  a. the capital cost of expanding or modifying the distribution system to accommodate the customer connection. These modifications include additions or capacity increases to existing distribution lines, stations, transformers, secondary busses, services and land or land rights and are referred to as "Capital Costs".

  b. the incremental operating, maintenance and administration costs attributable to the addition of new customers to the system. Kingston Hydro's average system operating, maintenance and administration costs are used for this purpose and referred to as "OM&A Costs".

- **Expansion Deposit**

  An amount that may be required of a new customer who requests connection to Hydro's distribution system to cover Kingston Hydro's risk in the case that projected load from the expansion is not brought on line within the connection horizon. A pro-rated portion of an expansion deposit is returned annually as loads are connected on schedule to Kingston Hydro's distribution system over the connection horizon.

- **New Customer**

  A customer that requests a new service connection to Kingston Hydro's electricity distribution system, or an existing customer that is requesting a significant increase in the capacity of their existing service and/or an increase in their connection voltage and/or a significant increase in their consumption or demand for electricity.

- **Revenue Horizon**

  A period of time, five (5) to forty (40) years in length, over which a new customer is projected to pay rates to Kingston Hydro for electricity distribution. The length of the Revenue Horizon is relative to the risk classification of the connection and qualifying criteria. New customers whose business risk class is greater will be given shorter revenue horizons, while low-risk customers will have longer revenue horizons. The Revenue Horizon is used in the new customer's economic evaluation and/or calculation of the new customer's expansion deposit.

Scope & Applicability

New individual Residential service and individual GS<50 kW connections are not subject to an economic evaluation and will not be assessed a capital contribution, however they are subject to applicable connection charges. All other customers shall be subject to an economic evaluation to assess a capital contribution.

Calculation of Capital Contribution Amounts – the Economic Evaluation Process

In order to perform an Economic Evaluation, Kingston Hydro shall request an electrical load forecast from the customer to determine the appropriate distribution system connection voltage, the size in kVa of the new connection or upgrade, and the probable revenues over time from the new connection or upgrade. Such a load forecast shall include an indication of the probable electrical consumption and demand for the new or upgraded connection, as well as an indication of the electrical loads that will be drawn from the connection in each of the years after the connection is made for the duration of the connection horizon. The connection horizon can range from one (1) to fifteen (15)

years for qualifying housing developments, as outlined within the Ontario Energy Board Distribution System Code. At a minimum, the customer will be required to fill out the "Electric Service Request" form available at:

UtilitiesKingston.com/Electricity/NewServices/ServiceRequest

Kingston Hydro may request additional information from the customer that may be necessary to determine load characteristics or the business risk affecting the cost or revenues for a given connection or upgrade. Kingston Hydro may modify the customer's load forecast based on historical experience with similar connections or other information at it sole discretion.

Kingston Hydro will determine the time horizon over which the Economic Evaluation will occur. This revenue horizon may be between five (5) and forty (40) years based on the risk profile of the customer and qualifying criteria.

Kingston Hydro will then employ a discounted cash flow model to calculate the Net Present Value of costs and revenues of the proposed connection or upgrade over the chosen revenue horizon. The weighted average cost of capital and electricity distribution rates to be employed by Kingston Hydro in this discounted cash flow model shall be that which is stipulated by the Ontario Energy Board at the time of the connection request. If an extension of the distribution system is necessary, actual costs for the extension will be used.

Connection costs may be reduced by Kingston Hydro's avoided costs in special cases where the customer is allowed by Kingston Hydro to own and maintain equipment related to the connection, such as a customer-owned transformer, if they are not eligible for credits specifically called for in Kingston Hydro's rate order from the Ontario Energy Board.

There are two different methods for calculating connection revenues depending on the customer class. For larger demand customers (>50 kVa), the revenue stream is the sum of the variable demand charges corresponding to the load profile of the customer and the fixed monthly charge for the customer class. For energy only customers (<50 kVa), the revenue will be based upon the customer's estimated energy consumption multiplied by the appropriate distribution rates, plus the fixed monthly charge for the customer class.

The Economic Evaluation is completed by performing the following calculation:

Capital Contribution = NPV of Expansion Costs – NPV of Connection Revenues

This calculation is in accordance with the Ontario Energy Board Distribution System Code's "Appendix B Methodology and Assumptions for An Economic Evaluation", which is included as an attachment to this document.

If the Capital Contribution amount is greater than zero, the customer may be required to pay this amount to Kingston Hydro as a condition of connection to the distribution system. If the Capital Contribution amount is less than zero, no capital contribution is required from the customer.

Offer to connect (Expansions)

A customer's offer to connect will consist of the following components:

1. Based on the results of the economic evaluation, Kingston Hydro's "Offer to Connect" will include:
    a. a description of work required to build the Expansion to connect the Customer if a capital contribution is required from the Customer;
    b. a firm price for the cost of Expansion that would be revised in the event the nature or scope of the expansion changes;
    c. a statement of the capital contribution to be charged to the Customer to construct the Expansion along with the calculation used to determine the amount of the capital contribution including all of the assumptions and inputs used in the discounted cash flow model;
    d. a description and statement of the connection charges that would apply;
    e. identification of work for which the Customer may seek alternative bids (the "Competitive Works") along with the process to be followed to obtain an alternative bid;
    f. a description of, and costs for, the competitive works and the non-competitive work associated with the expansion broken down into labour, materials, equipment and overheads;
    g. the amount of any additional costs that will apply as a result of the customer electing an alternative bidder to complete the competitive works. These costs would include but not be limited to engineering design costs, coordination of Kingston Hydro's work with the contractor's work, inspection of the contractor work to ensure that it meets Kingston Hydro's design and construction standards and the costs of making the final connection to Kingston Hydro's system;

h. terms and conditions for payments and deposits required; and

i. an agreement to transfer all competitive works undertaken by the customer to Kingston Hydro for $1 plus additional costs related to ensuring that the customer-built facilities are built to Kingston Hydro standards and can be valued accurately for accounting purposes; and

j. any additional information pertinent to the offer.

k. Once a customer accepts an Offer to Connect, Kingston Hydro will provide, upon the customer's request, an itemized list of the costs for the major items in each of the categories referred to in part (f). If the customer has not chosen an alternative bid for the work, the list will include all of the work involved in the expansion. If the customer has chosen an alternative bid for the work the list will include only the non-competitive work to be performed by Utilities Kingston on behalf of Kingston Hydro. The customer will be charged the actual cost of preparing the itemized list.

2. An Expansion Deposit (if required)

- Maximum amount is the Present Value of all revenues projected from the expansion based on the rate class of the connections, projected loads, and the projected connection schedule provided by the developer.
- This expansion deposit shall be returned to the customer should all competitive works undertaken by the customer be up to Kingston Hydro's standards and should loads promised by the customer materialize on schedule. Refunds of the deposit shall be made annually based upon the pro-rated portion of total build-out load connected in the past year.

3. Connection Costs

- Connection Costs are those costs incurred to execute the physical connection of the expansion or new/expanded load to the distribution system at the point of connection.

At a minimum, execution of a Connection Agreement (if required) and payment of any Capital Contribution assessment and any Expansion Deposit is required before Kingston Hydro can commence work to connect a new customer's electrical service.

Further Information

Customers have a right to review Kingston Hydro's economic evaluation for their connection, and Kingston Hydro may work with the customer to suggest ways to reduce the impact their connection or upgrade will have on the distribution system. In order to

minimize the capital contribution that may be required, potential and existing customers are encouraged to investigate electricity conservation and demand management and distributed electricity generation options that can minimize the size in kVa of their proposed connection or upgrade. By minimizing the electricity demand required for a given connection, customers can improve their own bottom line while helping the environment and prolonging the life of the existing distribution system.

The Ontario Energy Board Distribution System Code Appendix B (Methodology and Assumptions for an Economic Evaluation is enclosed and also available to view or download on the Ontario Energy Board's website: OEB.ca

Enclosed: Ontario Energy Board Distribution System Code Appendix B: Methodology and Assumptions for An Economic Evaluation (December 23, 2024)

APPENDIX B

Methodology and Assumptions for

An Economic Evaluation

Last Revised December 23, 2024

APPENDIX B -
METHODOLOGY AND ASSUMPTIONS FOR AN OFFER TO CONNECT ECONOMIC EVALUATION

B.1 COMMON ELEMENTS OF THE DISCOUNTED CASH FLOW MODEL

To achieve consistent business principles for the development of the elements of an economic evaluation model, the following parameters for the approach are to be followed by all distributors.

The discounted cash flow (DCF) calculation for individual projects will be based on a set of common elements and related assumptions listed below.

Revenue Forecasting

The common elements for any project will be as follows:

(a) Total forecasted customer additions over the customer connection horizon, by class as specified below;

(b) Customer revenue horizon as specified below;

(c) Estimate of average energy and demand per added customer (by project) which reflects the mix of customers to be added – for various classes of customers, this should be carried out by class;

(d) Customer additions, as reflected in the model for each year of the customer connection horizon; and

(e) Rates from the approved rate schedules for the particular distributor reflecting the distribution (wires only) rates.

Capital Costs

Common elements will be as follows:

(a) An estimate of all capital costs directly associated with the expansion to allow forecast customer additions.

(b) For expansions to the distribution system, costs of the following elements, where applicable, should be included:
- distribution stations;
- distribution lines;
- distribution transformers;
- secondary busses;
- services; and

- land and land rights.

Note that the "Ownership Demarcation Point" as specified in the distributor's Condition of Service would define the point of separation between a customers' facilities and distributor's facilities.

(c) Estimate of incremental overheads applicable to distribution system expansion.

(d) A per kilowatt enhancement cost estimate – the per kilowatt enhancement cost estimate shall be set annually and shall be based on a historical three to five year rolling average of actual enhancement costs incurred in system expansions.

(d.1) paragraph (d) shall cease to apply to a distributor as of the date on which the distributor's rates are set based on a cost of service application for the first time following the 2010 rate year.

(e) For residential customers, the amount the cost of the basic connection referred to in section 3.1.4 of the Code.

(f) For non-residential customers, if the distributor has chosen to recover the non-residential basic connection charge as part of its revenue requirement, a description of, and the amount for, the connection charges referred to in section 3.1.5 of the Code that have been factored into the economic evaluation.

Expense Forecasting

Common elements will be as follows:

(a) Attributable incremental operating and maintenance expenditures - any incremental attributable costs directly associated with the addition of new customers to the system would be included in the operating and maintenance expenditures.

(b) Income and capital taxes based on tax rates underpinning the existing rate schedules.

(c) Municipal property taxes based on projected levels.

Specific Parameters/Assumptions

Specific parameters of the common elements include the following:

(a) A customer connection horizon determined in accordance with the rules set out under "Customer Connection Horizon" below.

(b) A customer revenue horizon determined in accordance with the rules set out under "Customer Revenue Horizon" below.

(c) A discount rate equal to the incremental after-tax cost of capital, based on the prospective capital mix, debt and preference share cost rates, and the latest approved rate of return on common equity.

(d) Discounting to reflect the true timing of expenditures. Up-front capital expenditures will be discounted at the beginning of the project year and capital expended throughout the year will be mid-year discounted. The same approach to discounting will be used for revenues and operating and maintenance expenditures.[1]

Rules for Determining the Customer Connection Horizon and the Customer Revenue Horizon

In this section:

"housing development" means a project to construct multiple residential accommodations on a piece of land that will be divided into multiple parcels and offered for sale, and that will be comprised predominantly of residential accommodations but may also include public buildings, industrial and commercial buildings or space appropriate for such buildings;

"qualifying housing development" means a housing development that meets the following criteria:

(a) the developer for the housing development has requested a customer connection horizon that exceeds five (5) years;

(b) the connection of the last residential customer in the housing development is forecast to occur more than five (5) years from the date of energization of the facilities;

(c) the developer has provided the distributor with:
   i. an approved plan of subdivision for the housing development; and
   ii. evidence that the developer owns the land on which the housing development will be built or has written authorization to build the housing development on that land from the landowner; and

(d) an initial offer to connect the housing development had not been accepted by the developer on or before November 18, 2024.

[1] For certain projects Capital Expenditures may be staged and can occur in any year of the connection horizon.

APPENDIX B -
METHODOLOGY AND ASSUMPTIONS FOR AN OFFER TO CONNECT ECONOMIC EVALUATION

Customer Connection Horizon

(a) The customer connection horizon begins on the energization date of the facilities.

(b) Subject to paragraph (c), the customer connection horizon for a qualifying housing development shall be based on the date on which the last residential customer is forecasted to connect to the expansion, provided that the customer connection horizon shall not exceed fifteen (15) years.

(c) Where an expansion is being constructed to connect a qualifying housing development and one or more other customers, the customer connection horizon for all such customers shall be the longest customer connection horizon applicable to any one of them.

(d) In all other cases, the customer connection horizon is five (5) years. A distributor may extend the customer connection horizon in appropriate cases for up to 15 years, in which case the distributor will provide the Board with an explanation for the extension.

Customer Revenue Horizon[2]

(a) The maximum customer revenue horizon for a non-residential connection is twenty-five (25) years, calculated from the forecast in-service date of the first new customer connection.

(b) Subject to paragraph (c), the customer revenue horizon is forty (40) years for the connection of any of the following:

i. A residential customer, calculated from the forecast in-service date of the new customer connection;

ii. A property as defined in the *Condominium Act*, a residential complex as defined in the *Residential Tenancies Act, 2006* or a property that includes one or more dwellings and that is owned or leased by a cooperative as defined in the *Co-operative Corporations Act*, whether bulk metered or suite metered (as defined in the *Energy Consumer Protection Act, 2010*), calculated from the forecast in-service date of the new building connection; and

iii. A housing development, calculated from the forecast in-service date of the first residential customer connection.

[2] For the economic evaluation of a specific project, revenues should be calculated based on the forecasted customer or load additions within the customer connection horizon. For example, if customer additions are forecasted in year 3, the economic evaluation model should account for incremental revenues from year 3 through year 25. This approach applies to paragraphs (a) through (c).

(c) Where an initial offer to connect was accepted by the developer or other customer on or before November 18, 2024, the customer revenue horizon set out in paragraph (b) does not apply and the maximum customer revenue horizon is twenty-five (25) years, calculated from the forecast in-service date of the first new customer connection.

Transition to new Connection and Revenue Horizon Rules

Despite the coming into force of amendments to Part B.1 of Appendix B to the Distribution System Code on December 23, 2024, a distributor may continue to apply the provisions of Part B.1 as they existed immediately prior to that date in determining the connection or revenue horizon until and including March 2, 2025.

During this transition period, a distributor shall consistently apply either the provisions as they existed immediately before December 23, 2024 or the provisions as they were amended effective December 23, 2024.

B.2 DISCOUNTED CASH FLOW (DCF) METHODOLOGY

Net Present Value ("NPV")	=	Present Value ("PV") of Operating Cash Flow + PV of CCA Tax Shield - PV of Capital
1. PV of Operating Cash Flow	=	P V of Net Operating Cash (before taxes) - P V of Taxes
a) PV of Net Operating Cash	=	PV of Net Operating Cash Discounted at the Company's discount rate for the customer revenue horizon. Mid-year discounting is applied. Incremental after tax weighted average cost of capital will be used in discounting.
Net (Wires) Operating Cash	=	(Annual(Wires) Revenues - Annual (Wires) O&M)
Annual (Wires) Revenue	=	Customer Additions * [Appropriate (Wires) Rates * Rate Determinant]
Annual (Wires) O&M	=	Customer Additions * Annual Marginal (Wires) O&M Cost/customer
b) PV of Taxes	=	PV of Municipal Taxes + PV of Capital Taxes + PV of Income Taxes (before Interest tax shield)
Annual Municipal Tax	=	Municipal Tax Rate * (Total Capital Cost)
Total Capital Cost	=	Distribution Capital Investment + Customer Related Investment + overheads at the project level
Annual Capital Taxes	=	(Capital Tax Rate) * (Closing Undepreciated Capital Cost Balance)
Annual Capital Tax	=	(Capital Tax Rate) * (Net Operating Cash - Annual Municipal Tax - Annual Capital Tax)

The Capital Tax Rate is a combination of the Provincial Capital Tax Rate and the Large Corporation Tax (Grossed up for income tax effect where appropriate).

Note: Above is discounted, using mid-year discounting, over the customer revenue horizon.

2. PV of Capital	=	P V of Total Annual Capital Expenditures
a) PV of Total Annual Capital Expenditures		
Total Annual Capital Expenditures over the customer's revenue horizon discounted to time zero		
Total Annual Capital Expenditure	=	(for New Facilities and/or Reinforcement Investments + Customer Specific Capital + Overheads at the project level). This applies for implicated system elements at the utility side of the “Ownership Demarcation Line”.

Note: Above is discounted to the beginning of year one over the customer addition horizon

3. PV of CCA Tax Shield

P V of the CCA Tax Shield on [Total Annual Capital]

The PV of the perpetual tax shield may be calculated as:

PV at time zero of: $$\frac{[(\text{Income tax Rate}) * (\text{CCA Rate}) * \text{Annual Total Capital}]}{(\text{CCA Rate} + \text{Discount Rate})}$$

or,

Calculated annually and present valued in the PV of Taxes calculation.

Note: An adjustment is added to account for the ½ year CCA rule.

4. Discount Rate

PV is calculated with an incremental, after-tax discount rate.