



ONTARIO ENERGY BOARD

Distribution System Code

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Distribution System Code

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1 GENERAL AND ADMINISTRATIVE PROVISIONS

1.1 The Purpose of this Code

This Code sets the minimum conditions that a distributor must meet in carrying out its obligations to distribute electricity under its licence and the *Energy Competition Act, 1998*. Unless otherwise stated in the licence or Code, these conditions apply to all transactions and interactions between a distributor and all retailers, generators, distributors, transmitters and consumers of electricity who use the distributor's distribution system.

1.2 Definitions

In this Code:

“Accounting Procedures Handbook” means the handbook approved by the Board and in effect at the relevant time, which specifies the accounting records, accounting principles and accounting separation standards to be followed by the distributor;

“Act” means the Ontario Energy Board Act, 1998, S.O. 1998, C. 15, Schedule B;

“Affiliate Relationships Code” means the code, approved by the Board and in effect at the relevant time, which among other things, establishes the standards and conditions for the interaction between electricity distributors or transmitters and their respective affiliated companies;

“ancillary services” means services necessary to maintain the reliability of the IESO-controlled grid; including frequency control, voltage control, reactive power and operating reserve services;

“bandwidth” means a distributor's defined tolerance used to flag data for further scrutiny at the stage in the VEE process where a current reading is compared to a reading from an equivalent historical billing period. For example, a 30 percent bandwidth means a current reading that is either 30 percent lower or 30 percent higher than the measurement from an equivalent historical billing period will be identified by the VEE process as requiring further scrutiny and verification;

“Board” means the Ontario Energy Board;

“capacity allocation exempt small embedded generation facility” means an embedded generation facility which is not a micro-embedded generation facility and which has a name-plate rated capacity of 250 kW or less in the case of a facility connected to a less

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than 15 kV line and 500 kW or less in the case of a facility connected to a 15 kV or greater line;

“Code” means the Distribution System Code;

"competitive retailer" is a person who retails electricity to consumers who do not take Standard Supply Service ("SSS");

“complex metering installation” means a metering installation where instrument transformers, test blocks, recorders, pulse duplicators and multiple meters may be employed;

“Conditions of Service” means the document developed by a distributor in accordance with subsection 2.3 of this Code that describes the operating practices and connection rules for the distributor;

“connection” means the process of installing and activating connection assets in order to distribute electricity;

“Connection Agreement” means an agreement entered into between a distributor and a person connected to its distribution system that delineates the conditions of the connection and delivery of electricity to or from that connection;

“connection assets” means that portion of the distribution system used to connect a customer to the existing main distribution system, and consists of the assets between the point of connection on a distributor’s main distribution system and the ownership demarcation point with that customer;

“connection cost agreement” means the agreement referred to in section 6.2.18;

“consumer” means a person who uses, for the person’s own consumption, electricity that the person did not generate;

“customer” means a person that has contracted for or intends to contract for connection of a building or an embedded generation facility. This includes developers of residential or commercial sub-divisions;

“demand meter” means a meter that measures a consumer’s peak usage during a specified period of time;

“disconnection” means a deactivation of connection assets that results in cessation of distribution services to a consumer;

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"disconnect/collect trip" is a visit to a customer's premises by an employee or agent of the distributor to demand payment of an outstanding amount or to shut off or limit distribution of electricity to the customer failing payment.

"distribute", with respect to electricity, means to convey electricity at voltages of 50 kilovolts or less;

"distribution losses" means energy losses that result from the interaction of intrinsic characteristics of the distribution network such as electrical resistance with network voltages and current flows;

"distribution loss factor" has the meaning described to it in the Retail Settlement Code;

"distribution services" means services related to the distribution of electricity and the services the Board has required distributors to carry out;

"distribution system" means a system for distributing electricity, and includes any structures, equipment or other things used for that purpose. A distribution system is comprised of the main system capable of distributing electricity to many customers and the connection assets used to connect a customer to the main distribution system;

"Distribution System Code" means the code, approved by the Board, and in effect at the relevant time, which, among other things, establishes the obligations of a distributor with respect to the services and terms of service to be offered to customers and retailers and provides minimum technical operating standards of distribution systems;

"distributor" means a person who owns or operates a distribution system;

"*Electricity Act*" means the *Electricity Act, 1998*, S.O. 1998, c.15, Schedule A;

"*Energy Competition Act*" means the *Energy Competition Act, 1998*, S.O. 1998, c. 15;

"Electrical Safety Authority" or "ESA" means the person or body designated under the *Electricity Act* regulations as the Electrical Safety Authority;

"embedded distributor" means a distributor who is not a wholesale market participant and that is provided electricity by a host distributor;

"embedded generation facility" means a generation facility which is not directly connected to the IESO-controlled grid but instead is connected to a distribution system, and has the extended meaning given to it in section 1.9;

"embedded retail generator" means a customer that:

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- (a) is not a wholesale market participant or a net metered generator (as defined in section 6.7.1);
- (b) owns or operates an embedded generation facility, other than an emergency backup generation facility; and
- (c) sells output from the embedded generation facility to the Ontario Power Authority under contract or to a distributor;

“embedded wholesale consumer” means a consumer who is a wholesale market participant whose facility is not directly connected to the IESO-controlled grid but is connected to a distribution system;

“emergency” means any abnormal system condition that requires remedial action to prevent or limit loss of a distribution system or supply of electricity that could adversely affect the reliability of the electricity system;

“emergency backup generation facility” means a generation facility that has a transfer switch that isolates it from a distribution system;

“enhancement” means a modification to the main distribution system that is made to improve system operating characteristics such as reliability or power quality or to relieve system capacity constraints resulting, for example, from general load growth, but does not include a renewable enabling improvement;

“expansion” means 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 3.2.30 but in respect of a renewable energy generation facility excludes a renewable enabling improvement;

“four-quadrant interval meter” means an interval meter that records power injected into a distribution system and the amount of electricity consumed by the customer;

“generate”, with respect to electricity, means to produce electricity or provide ancillary services, other than ancillary services provided by a transmitter or distributor through the operation of a transmission or distribution system;

“generation facility” means a facility for generating electricity or providing ancillary services, other than ancillary services provided by a transmitter or distributor through the operation of a transmission or distribution system, and includes any structures, equipment or other things used for that purpose;

“generator” means a person who owns or operates a generation facility;

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“geographic distributor,” with respect to a load transfer, means the distributor that is licensed to service a load transfer customer and is responsible for connecting and billing the load transfer customer;

“good utility practice” means any of the practices, methods and acts engaged in or approved by a significant portion of the electric utility industry in North America during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgement in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good practices, reliability, safety and expedition. Good utility practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in North America;

“holiday” means a Saturday, Sunday, statutory holiday, or any day as defined in the Province of Ontario as a legal holiday;

“host distributor” means the distributor who provides electricity to an embedded distributor;

“IESO” means the Independent Electricity System Operator continued under the *Electricity Act*.

“IESO-controlled grid” means the transmission systems with respect to which, pursuant to agreements, the IESO has the authority to direct operations.

“interval meter” means a meter that measures and records electricity use on an hourly or sub-hourly basis;

“large embedded generation facility” means an embedded generation facility with a name-plate rated capacity of more than 10 MW;

“load displacement” means, in relation to a generation facility that is connected on the customer side of a connection point, that the output of the generation facility is used or intended to be used exclusively for the customer’s own consumption;

“load transfer” means a network supply point of one distributor that is supplied through the distribution network of another distributor and where this supply point is not considered a wholesale supply or bulk sale point;

“load transfer customer” means a customer that is provided distribution services through a load transfer;

“Market Rules” means the rules made under section 32 of the *Electricity Act*;

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“Measurement Canada” means the Special Operating Agency established in August 1996 by the *Electricity and Gas Inspection Act*, 1980-81-82-83, c. 87., and Electricity and Gas Inspection Regulations (SOR/86-131);

“meter service provider” means any entity that performs metering services on behalf of a distributor or generator;

“meter installation” means the meter and, if so equipped, the instrument transformers, wiring, test links, fuses, lamps, loss of potential alarms, meters, data recorders, telecommunication equipment and spin-off data facilities installed to measure power past a meter point, provide remote access to the metered data and monitor the condition of the installed equipment;

“metering services” means installation, testing, reading and maintenance of meters;

“micro-embedded generation facility” means an embedded generation facility with a name-plate rated capacity of 10 kW or less;

“mid-sized embedded generation facility” means an embedded generation facility with a name-plate rated capacity of 10 MW or less and:

- (a) more than 500 kW in the case of a facility connected to a less than 15 kV line; and
- (b) more than 1 MW in the case of a facility connected to a 15 kV or greater line;

“MIST meter” means an interval meter from which data is obtained and validated within a designated settlement timeframe. MIST refers to “Metering Inside the Settlement Timeframe;”

“MOST meter” means an interval meter from which data is only available outside of the designated settlement timeframe. MOST refers to “Metering Outside the Settlement Timeframe;”

“Ontario Electrical Safety Code” means the code adopted by O. Reg. 164/99 as the Electrical Safety Code;

“*Ontario Energy Board Act*” means the *Ontario Energy Board Act*, 1998, S.O. 1998, c.15, Schedule B;

“operational demarcation point” means the physical location at which a distributor’s responsibility for operational control of distribution equipment including connection assets ends at the customer;

“ownership demarcation point” means the physical location at which a distributor’s ownership of distribution equipment including connection assets ends at the customer;

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“performance standards” means the performance targets for the distribution and connection activities of the distributor as established by the Board pursuant to the Act and in the Rate Handbook;

“physical distributor,” with respect to a load transfer, means the distributor that provides physical delivery of electricity to a load transfer customer, but is not responsible for connecting and billing the load transfer customer directly;

“point of supply,” with respect to an embedded generation facility, means the connection point where electricity produced by the generation facility is injected into the distribution system;

“rate” means any rate, charge or other consideration, and includes a penalty for late payment;

“Rate Handbook” means the document approved by the Board that outlines the regulatory mechanisms that will be applied in the setting of distributor rates;

“Regulations” means the regulations made under the *Act or the Electricity Act* ;

“renewable enabling improvement” means a modification or addition to the main distribution system identified in section 3.3.2 that is made to enable the main distribution system to accommodate generation from renewable energy generation facilities;

“renewable energy expansion cost cap” means, in relation to a renewable energy generation facility, the dollar amount determined by multiplying the total name-plate rated capacity of the renewable energy generation facility referred to in section 6.2.9(a) (in MW) by \$90,000, reduced where applicable in accordance with section 3.2.27A;

“renewable energy generation facility” has the meaning given to it in the Act;

“renewable energy source” has the meaning given to it in the Act;

“retail”, with respect to electricity means,

- a) to sell or offer to sell electricity to a consumer
- b) to act as agent or broker for a retailer with respect to the sale or offering for sale of electricity, or
- c) to act or offer to act as an agent or broker for a consumer with respect to the sale or offering for sale of electricity.

“Retail Settlement Code” means the code approved by the Board and in effect at the relevant time, which, among other things, establishes a distributor’s obligations and

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responsibilities associated with financial settlement among retailers and customers and provides for tracking and facilitating customer transfers among competitive retailers;

“retailer” means a person who retails electricity;

“service area,” with respect to a distributor, means the area in which the distributor is authorized by its license to distribute electricity;

“small embedded generation facility” means an embedded generation facility which is not a micro-embedded generation facility with a name-plate rated capacity of 500 kW or less in the case of a facility connected to a less than 15 kV line and 1MW or less in the case of a facility connected to a 15 kV or greater line;

“smart meter” means a meter that is part of an advanced metering infrastructure that meets the functional specification referenced in the Criteria and Requirements for Meters and Metering Equipment, Systems and Technology Regulation, O. Reg. 425/06;

“total losses” means the sum of distribution losses and unaccounted for energy;

“transmission system” means a system for transmitting electricity, and includes any structures, equipment or other things used for that purpose;

“Transmission System Code” means the code, approved by the Board, that is in force at the relevant time, which regulates the financial and information obligations of the Transmitter with respect to its relationship with customers, as well as establishing the standards for connection of customers to, and expansion of a transmission system;

“transmit”, with respect to electricity, means to convey electricity at voltages of more than 50 kilovolts;

“transmitter” means a person who owns or operates a transmission system;

“unaccounted for energy” means all energy losses that cannot be attributed to distribution losses. These include measurement error, errors in estimates of distribution losses and unmetered loads, energy theft and non-attributable billing errors;

“unmetered loads” means electricity consumption that is not metered and is billed based on estimated usage;

“validating, estimating and editing (VEE)” means the process used to validate, estimate and edit raw metering data to produce final metering data or to replicate missing metering data for settlement purposes;

“wholesale buyer” means a person that purchases electricity or ancillary services in the IESO-administered markets or directly from a generator;

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“wholesale market participant”, means a person that sells or purchases electricity or ancillary services through the IESO-administered markets;

“wholesale supplier” means a person who sells electricity or ancillary services through the IESO-administered markets or directly to another person, other than a consumer.

1.3 Interpretations

Unless otherwise defined in this Code, words and phrases shall have the meaning ascribed to them in the *Act*, or the *Electricity Act*, as the case may be. Headings are for convenience only and shall not affect the interpretation of this Code. Words importing the singular include the plural and vice versa. A reference to a document or a provision of a document includes any amendment or supplement to, or any replacement of, that document or that provision of that document. An event that is required under this Code to occur on or by a stipulated day which is a holiday may occur on or by the next day, that is not holiday.

1.4 To Whom this Code Applies

This Code applies to all electricity distributors licensed by the Ontario Energy Board under Part V of the *Ontario Energy Board Act, 1998*. These entities are obligated to comply with the Code as a condition of their licence.

1.5 Hierarchy of Codes

The order of hierarchy for the Distribution System Code in relation to other codes, subject to any specific conditions of a licence that apply to the distributor, are as follows:

1. Affiliate Relationships Code
2. Distribution System Code
3. Retail Settlement Code
4. Standard Supply Service Code

1.6 Amendments to this Code

This Code may be amended only in accordance with the procedures set out by the Board in the licence issued to a distributor.

1.7 Coming into Force

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This Code comes into force on the day subsection 26(1) of the *Electricity Act* comes into force with the following exception.

Any amendments to this Code shall come into force on the date the Board publishes the amendments by placing them on the Board's website after they have been made by the Board, except where expressly provided otherwise.

All of Chapter 3, *Connections and Expansions* and Subsection 6.2.3 of Section 6.2, *Responsibilities to Generators* come into force on September 29, 2000. These provisions do not apply to projects that are the subject of an agreement entered into before November 1, 2000.

The amendments to this Code made by the Board on December 19, 2003 come into effect on March 22, 2004. [Note: Primarily section 6.2. Appendix E and F were also replaced].

Sections 2.4.6.1, 2.4.6.2 and 2.4.9 to 2.4.28 come into force on the day that is 6 months after these sections are published on the Board's website after having been made by the Board. [Note: These sections were published on February 3, 2004].

The amendments to this Code made by the Board February 24, 2005 will come into effect 90 days after this date.

Section 6.7 of the Code and the amendment to section 4.2 of the "Micro-Embedded Generation Facility Connection Agreement" in Appendix F of the Code, made by the Board on February 1, 2006 come into force on February 10, 2006.

Sections 2.4.30 and 2.4.31 of the Code, made by the Board on May 12, 2006, come into force on the day that is ninety days after they are published on the Board's website after having been made by the Board. [Note: These sections were published on May 12, 2006].

The amendments to this Code made by the Board on July 27, 2006, will come into effect 180 days after that date. The amendments will only apply to expansions where the distributor's initial offer to connect the customer and build the expansion, as set out in sections 3.2.8 and 3.2.9, occurs on or after the date the amendments come into force.

All of section 7, *Service Quality Requirements*, comes into force on January 1, 2009.

Section 2.5.6 comes into force on January 1, 2010.

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Section 4.7 and Appendix H come into force on the day that is 90 days from the date on which they are published on the Board's website after having been made by the Board. [Note: section 4.7 and Appendix H were published on the Board's website on June 16, 2009]

1.8 Requirements for Board Approvals

Any matter under this Code requiring a determination of the Board may be determined by the Board without a hearing or through an oral, written or electronic hearing, at the Board's discretion.

1.9 Extended Meaning of Embedded Generation Facility

A distributor shall, for all purposes under this Code, treat a generation facility that is connected on the customer side of a connection point to the distribution system as an embedded generation facility. To that end:

- a. the terms "connect", "connected" and "connection" when used in relation to such a generation facility shall be interpreted accordingly; and
- b. the distributor shall treat the owner or operator of the generation facility as a generator in relation to the connection and operation of that generation facility.

1.10 Separate Accounts for Embedded Retail Generators

Where an embedded retail generator that has a contract issued under the feed-in-tariff program referred to in section 25.35 of the Electricity Act is connected on the customer side of a connection point (as set out in section 1.9), the distributor shall open a separate account for the embedded retail generator and shall for settlement purposes treat the embedded retail generator as a separate customer, separate and apart from any associated load customer. This rule applies regardless of the electrical configuration of the load and generation meters and regardless of whether the embedded retail generator and the associate load customer are the same person or entity.

2 STANDARDS OF BUSINESS PRACTICE AND CONDUCT

2.1 Connection Agreement Requirement

Note: Section 2.1 revoked by amendment, effective March 22, 2004.

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2.2 Liability

- 2.2.1 A distributor shall only be liable to a customer and a customer shall only be liable to a distributor for any damages which arise directly out of the willful misconduct or negligence:
1. Of the distributor in providing distribution services to the customer;
 2. Of the customer in being connected to the distributor 's distribution system; or
 3. Of the distributor or customer in meeting their respective obligations under this Code, their licences and any other applicable law.
- 2.2.2 Despite section 2.2.1; neither the distributor nor the customer shall be liable under any circumstances whatsoever for any loss of profits or revenues, business interruption losses, loss of contract or loss of goodwill, or for any indirect, consequential, incidental or special damages, including but not limited to punitive or exemplary damages, whether any of the said liability, loss or damages arise in contract, tort or otherwise.

2.3 Force Majeure

- 2.3.1 Neither party shall be held to have committed an event of default in respect of any obligation under this Code if prevented from performing that obligation, in whole or in part, because of a force majeure event.
- 2.3.2 If a force majeure event prevents a party from performing any of its obligations under this Code and the applicable Connection Agreement, that party shall:
1. Promptly notify the other party of the force majeure event and its assessment in good faith of the effect that the event will have on its ability to perform any of its obligations. If the immediate notice is not in writing, it shall be confirmed in writing as soon as reasonably practicable.
 2. Not be entitled to suspend performance of any of its obligations under this Code to any greater extent or for any longer time than the force majeure event requires it to do;
 3. Use its best efforts to mitigate the effects of the force majeure event, remedy its inability to perform, and resume full performance of its obligations;
 4. Keep the other party continually informed of its efforts; and
 5. Provide written notice to the other party when it resumes performance of any obligations affected by the force majeure event.

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2.3.3 Notwithstanding any of the foregoing, settlement of any strike, lockout, or labor dispute constituting a force majeure event shall be within the sole discretion of the party to the agreement involved in the strike, lockout, or labour dispute. The requirement that a party must use its best efforts to remedy the cause of the force majeure event, mitigate its effects, and resume full performance under this Code shall not apply to strikes, lockouts, or labour disputes

2.4 Conditions of Service

2.4.1 A distributor shall document its Conditions of Service that describe the operating practices and connection policies of the distributor. All distributors shall have a Conditions of Service. Subject to this Code and other applicable laws, a distributor shall comply with its Conditions of Service but may waive a provision of its Conditions of Service in favour of a customer or potential customer.

2.4.2 A distributor shall file a copy of its Conditions of Service with the Board, make its Conditions of Service publicly available and provide a copy to any person requesting it. A distributor shall provide one copy per revision for each person that requests it.

2.4.3 A distributor's existing Conditions of Service will be deemed to meet the standards set out in this Code for a period of one year following the coming into force of this Code, after which point the distributor must comply.

2.4.4 Note: Section 2.4.4 revoked by amendment, effective March 22, 2004.

2.4.5 A distributor's Conditions of Service may be subject to review as part of the distributor's performance based rates plan.

2.4.6 A distributor's Conditions of Service shall include, at a minimum, a description of the following:

- The types of connection service performed by the distributor for each customer class, and the conditions under which these connections will be performed (connection policy).
- The distributor's basic connection service that is recovered through its revenue requirements and does not require a variable connection charge.

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- The distributor's capital contribution policy by customer class for an offer to connect, including procedures for collection of capital contributions.
- The demarcation point at which the distributor's operational responsibilities for distribution equipment end at the customer.
- The demarcation point at which the distributor's ownership of distribution equipment ends at the customer.
- The billing cycle period and payment requirements by customer class.
- Design requirements for connection to the distribution system.
- Voltages at which the distributor provides electricity and corresponding load thresholds.
- Type of meters provided by the distributor.
- Meters required by customer class.
- Quality of Service standards to which the distribution system is designed and operated.
- Conditions under which supply may be unreliable or intermittent.
- Conditions under which service may be interrupted.
- Conditions under which the distributor may disconnect a consumer.
- Policies for planned interruptions.
- The business process the distributor uses to disconnect and reconnect consumers, including means of notification and timing.
- The distributor's rights and obligations with respect to a customer.
- Rights and obligations a consumer or embedded generator has with respect to the distributor.
- The distributor's liability limitations in accordance with this Code.
- The distributor's dispute resolution procedure.
- Terms and conditions under which the distributor provides other services in its capacity as a distributor.

The conditions of service must be consistent with the provisions of this Code and all other applicable codes and legislation including the Rate Handbook.

2.4.6.1 A distributor's Conditions of Service shall include the distributor's security deposit policy which shall be consistent with the provisions of this Code. A distributor's security deposit policy shall include at a minimum the following:

- a list of all potential types/forms of security accepted;

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- a detailed description of how the amount of security is calculated;
 - limits on amount of security required;
 - the planned frequency, process and timing for updating security;
 - criteria customers must meet to have security deposit waived and/or returned; and
 - methods of enforcement where a security deposit is not paid.
- 2.4.6.2 In managing customer non-payment risk, a distributor shall not discriminate among customers with similar risk profiles or risk related factors except where expressly permitted under this Code.
- 2.4.7 If a distributor's Conditions of Service are documented in a form or in an order different than that specified in the generic Conditions of Service attached to this Code as Appendix A, the distributor shall provide a mapping of terms in its Conditions of Service to the sections and subsections in Appendix A.
- 2.4.8 A distributor shall provide advance public notice of any changes to its Conditions of Service. Notice shall be, at a minimum, provided to each customer by means of a note on and/or included with the customer's bill. The public notice shall include a proposed timeline for implementation of the new Conditions of Service and a means by which public comment may be provided. A distributor shall provide the Board with a copy of the new Conditions of Service once they are implemented. The copy of the revised document shall include a cover letter that outlines the changes from the prior document, as well as a summary of any public comments on the changes.
- 2.4.9 A distributor may require a security deposit from a customer who is not billed by a competitive retailer under retailer-consolidated billing unless the customer has a good payment history of 1 year in the case of a residential customer, 5 years in the case of a non-residential customer in a <50 kW demand rate class or 7 years in the case of a non-residential customer in any other rate class. The time period that makes up the good payment history must be the most recent period of time and some of the time period must have occurred in the previous 24 months. A distributor shall provide a customer with the specific reasons for requiring a security deposit from the customer.
- 2.4.10 For the purposes of section 2.4.9, a customer is deemed to have a good payment history unless, during the relevant time period set out in section 2.4.9, the customer has received more than one disconnection notice from the

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distributor, more than one cheque given to the distributor by the customer has been returned for insufficient funds, more than one pre-authorized payment to the distributor has been returned for insufficient funds or a disconnect / collect trip has occurred. If any of the preceding events occur due to an error by the distributor, the customer's good payment history shall not be affected.

2.4.11 Despite section 2.4.9, a distributor shall not require a security deposit where:

- (a) a customer provides a letter from another distributor or gas distributor in Canada confirming a good payment history with that distributor for the most recent relevant time period set out in section 2.4.9 where some of the time period which makes up the good payment history has occurred in the previous 24 months; or
- (b) a customer, other than a customer in a >5000 kW demand rate class, provides a satisfactory credit check made at the customer's expense.

2.4.12 The maximum amount of a security deposit which a distributor may require a customer to pay shall be calculated in the following manner:

billing cycle factor x estimated bill based on the customer's average monthly load with the distributor during the most recent 12 consecutive months within the past two years

Where relevant usage information is not available for the customer for 12 consecutive months within the past two years or where the distributor does not have systems capable of making the above calculation, the customer's average monthly load shall be based on a reasonable estimate made by the distributor.

2.4.13 Despite section 2.4.12, where a non-residential customer in any rate class other than a < 50 kW demand rate class has a credit rating from a recognized credit rating agency, the maximum amount of a security deposit which the distributor may require the non-residential customer to pay shall be reduced in accordance with the following table:

Credit Rating <i>(Using Standard and Poor's Rating Terminology)</i>	Allowable Reduction in Security Deposit
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AAA- and above or equivalent	100%
AA-, AA, AA+ or equivalent	95%
A-, From A, A+ to below AA or equivalent	85%
BBB-, From BBB, BBB+ to below A or equivalent	75%
Below BBB- or equivalent	0%

- 2.4.14 For the purposes of calculating the estimated bill under section 2.4.12 for a low-volume consumer or designated consumer who is billed under SSS or distributor-consolidated billing, the price estimate used in calculating competitive electricity costs shall be the same as the price used by the IESO for the purpose of determining maximum net exposures and prudential support obligations for distributors, low-volume consumers and designated consumers. For the purpose of calculating the estimated bill under section 2.4.12 for all other customers billed under SSS or distributor-consolidated billing, the price estimate used in calculating competitive electricity costs shall be the same as the price used by the IESO for the purpose of determining maximum net exposures and prudential support obligations for market participants other than distributors, low-volume consumers and designated consumers.
- 2.4.15 Subject to section 2.4.6.2, a distributor may in its discretion reduce the amount of a security deposit which it requires a customer to pay for any reason including where the customer pays under an interim payment arrangement and where the customer makes pre-authorized payments.
- 2.4.16 For the purposes of sections 2.4.12, the billing cycle factor is 2.5 if the customer is billed monthly, 1.75 if the customer is billed bi-monthly and 1.5 if the customer is billed quarterly.
- 2.4.17 Where a customer has a payment history which discloses more than one disconnection notice in a relevant 12 month period, the distributor may use that customer's highest actual or estimated monthly load for the most recent 12 consecutive months within the past 2 years for the purposes of making the calculation of the maximum amount of security deposit under section 2.4.12.
- 2.4.18 The form of payment of a security deposit for a residential customer shall be cash or cheque at the discretion of the customer or such other form as is acceptable to the distributor.

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- 2.4.19 The form of payment of a security deposit for a non-residential customer shall be cash, cheque or an automatically renewing, irrevocable letter of credit from a bank as defined in the *Bank Act*, 1991, c.46 at the discretion of the customer. The distributor may also accept other forms of security such as surety bonds and third party guarantees.
- 2.4.20 A distributor shall permit the customer to provide a security deposit in equal installments paid over at least four months. A customer may, in its discretion, choose to pay the security deposit over a shorter time period.
- 2.4.21 Interest shall accrue monthly on security deposits made by way of cash or cheque commencing on receipt of the total deposit required by the distributor. The interest rate shall be at the Prime Business Rate as published on the Bank of Canada website less 2 percent, updated quarterly. The interest accrued shall be paid out at least once every 12 months or on return or application of the security deposit or closure of the account, whichever comes first, and may be paid by crediting the account of the customer or otherwise.
- 2.4.22 A distributor shall review every customer's security deposit at least once in a calendar year to determine whether the entire amount of the security deposit is to be returned to the customer as the customer is now in a position that it would be exempt from paying a security deposit under section 2.4.9 or 2.4.11 had it not already paid a security deposit or whether the amount of the security deposit is to be adjusted based on a re-calculation of the maximum amount of the security deposit under section 2.4.12 or 2.4.13.
- 2.4.23 A customer may, no earlier than 12 months after the payment of a security deposit or the making of a prior demand for a review, demand in writing that a distributor undertake a review to determine whether the entire amount of the security deposit is to be returned to the customer as the customer is now in a position that it would be exempt from paying a security deposit under section 2.4.9 or 2.4.11 had it not already paid a security deposit or whether the amount of the security deposit is to be adjusted based on a re-calculation of the maximum amount of the security deposit under section 2.4.12 or 2.4.13.
- 2.4.24 Despite section 2.4.22, a distributor is not required to review a security deposit paid prior to February 2, 2004 during the calendar year 2004. Despite section

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2.4.23, a customer may not demand a review of a security deposit paid prior to February 2, 2004 until February 1, 2005.

- 2.4.25 Where the distributor determines in conducting a review under section 2.4.22 or 2.4.23 that some or all of the security deposit is to be returned to the customer, the distributor shall promptly return this amount to the customer by crediting the customer's account or otherwise. Despite sections 2.4.22 and 2.4.23, in the case of a customer in a > 5000 kW demand rate class, where the customer is now in a position that it would be exempt from paying a security deposit under section 2.4.9 or 2.4.11 had it not already paid a security deposit, the distributor is only required to return 50% of the security deposit held by the distributor. Despite section 2.4.20, where the distributor determines in conducting a review under section 2.4.22 or 2.4.23 that the maximum amount of the security deposit is to be adjusted upward, the distributor may require the customer to pay this additional amount at the same time as that customer's next regular bill comes due.
- 2.4.26 A distributor shall promptly return any security deposit received from the customer upon closure of the customer's account, subject to the distributor's right to use the security deposit to set off other amounts owing by the customer to the distributor. The security deposit shall be returned within six weeks of the closure of an account.
- 2.4.27 A distributor shall apply a security deposit to the final bill prior to the change in service where a customer changes from SSS to a competitive retailer that uses retailer-consolidated billing or a customer changes billing options from distributor-consolidated billing to split billing or retailer-consolidated billing. A distributor shall promptly return any remaining amount of the security deposit to the customer. A distributor shall not pay any portion of a customer's security deposit to a competitive retailer. Where a change is made from distributor-consolidated billing to split billing, a distributor may retain a portion of the security deposit amount that reflects the non-payment risk associated with the new billing option.
- 2.4.28 Despite sections 2.4.22, 2.4.23, 2.4.25, 2.4.26 and 2.4.27, where all or part of a security deposit has been paid by a third party on behalf of a customer, the distributor shall return the amount of the security deposit paid by the third party, including interest, where applicable, to the third party. This obligation shall apply where and to the extent that:

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- the third party paid all or part (as applicable) of the security deposit directly to the distributor;
 - the third party has requested, at the time the security deposit was paid or within a reasonable time thereafter, that the distributor return all or part (as applicable) of the security deposit to it rather than to the customer; and
 - there is not then any amount overdue for payment by the customer that the distributor is permitted by this Code to off set using the security deposit.
- 2.4.29 For the purposes of sections 2.4.9 and 2.4.18, the following customers shall be deemed to be residential customers:
- (a) seasonal customers who are not classified as general service customers; and
 - (b) customers of a distributor with a farm rate class who have farms with a dwelling that is occupied as a residence continuously for at least 8 months of the year, where the customer has a < 50 kW demand.
- 2.4.30 A customer that is a corporation within the meaning of the *Condominium Act, 1998* who has an account with a distributor that:
- (a) relates to a property defined in the *Condominium Act, 1998* and comprised predominantly of units that are used for residential purposes; and
 - (b) relates to more than one unit in the property,
- shall be deemed to be a residential customer for the purposes of sections 2.4.9 and 2.4.18 provided that the customer has filed with the distributor a declaration in a form approved by the Board attesting to the customer's status as a corporation within the meaning of the *Condominium Act, 1998*.
- 2.4.31 Sections 2.4.22 and 2.4.23 shall be applied on the basis that a customer referred to in section 2.4.30 is a residential customer even if the customer paid the security deposit prior to the date on which section 2.4.30 came into force.
- 2.4.32 Despite any other provision of this Code and despite the billing cycle that would otherwise be applicable based on the distributor's normal practice as documented in its Conditions of Service, in managing customer non-payment risk a distributor may:

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- (a) bill a customer on a bi-weekly basis, if the value of that customer's electricity bill over 12 consecutive months falls between 51% and 100% of the distributor's approved distribution revenue requirement over that 12-month period; or
- (b) bill a customer on a weekly basis, if the value of that customer's electricity bill over 12 consecutive months exceeds 100% of the distributor's approved distribution revenue requirement over that 12-month period.

For the purposes of determining whether this section applies in relation to a customer, a distributor may consider the value of the customer's electricity bill in the 12-month period preceding the coming into force of this section.

- 2.4.33 A distributor shall not bill a customer in accordance with section 2.4.32 unless the distributor has given the customer at least 42 days notice before issuance of the first bi-weekly or weekly bill, as the case may be.
- 2.4.34 Where a distributor is billing a customer in accordance with section 2.4.32 or section 2.4.36, the distributor shall resume billing the customer in accordance with the billing cycle that would otherwise be applicable based on the distributor's normal practice as documented in its Conditions of Service if the value of that customer's annual electricity bill over 12 consecutive months falls below 51% of the distributor's distribution revenue over that 12-month period.
- 2.4.35 Where a distributor is billing a customer in accordance with section 2.4.32(b), the distributor shall bill the customer as follows if the value of that customer's annual electricity bill over 12 consecutive months falls between 51% and 100% of the distributor's distribution revenue over that 12-month period:
 - (a) in accordance with the billing cycle that would otherwise be applicable based on the distributor's normal practice as documented in its Conditions of Service; or
 - (b) in accordance with section 2.4.32(a) or section 2.4.36.
- 2.4.36 Despite any other provision of this Code, a distributor that intends to bill or is billing a customer in accordance with section 2.4.32 may, in lieu of such billing, negotiate alternative arrangements with the customer, including in relation to a lesser frequency of billing or in relation to the giving or retention of security deposits.

2.5 Frequency and Notice of Customer Reclassification and Notice of kVA Billing

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- 2.5.1 A distributor shall, at least once in each calendar year, review each non-residential customer's rate classification to determine whether, based on the rate classification requirements set out in the distributor's rate order, the customer should be assigned to a different rate class. Subject to section 2.5.3, other than at the request of the non-residential customer a distributor may not change a non-residential customer's rate classification more than once in any calendar year.
- 2.5.2 A distributor shall review a non-residential customer's rate classification upon being requested to do so by the customer to determine whether, based on the rate classification requirements set out in the distributor's rate order, the customer should be assigned to a different rate class. Subject to section 2.5.4, a distributor is not required to respond to more than one such customer request in any calendar year.
- 2.5.3 A distributor may review a non-residential customer's rate classification at any time if the customer's demand falls outside the upper or lower limits applicable to the customer's current rate classification for a period of five consecutive months.
- 2.5.4 A distributor shall review a non-residential customer's rate classification upon being requested to do so by the customer at any time if the customer's demand falls outside the upper or lower limits applicable to the customer's current rate classification for a period of five consecutive months.
- 2.5.5 Where a distributor assigns a non-residential customer to a different rate class as a result of a review initiated by the distributor, the distributor shall give the customer written notice of the reclassification no less than one billing cycle before the reclassification takes effect for billing purposes.
- 2.5.6 A distributor that charges a non-residential customer on the basis of 90% of the kVA reading of the customer's meter rather than on the basis of the kW reading of the customer's reading shall include on all bills issued to that customer a message to the effect that billing is based on 90% of the kVA reading.

3 CONNECTIONS AND EXPANSIONS

3.1 Connections

- 3.1.1 In establishing its connection policy as specified in its Conditions of Service, and determining how to comply with its obligations under section 28 of the *Electricity Act*, a distributor may consider the following reasons to refuse to connect, or continue to connect, a customer:

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- (a) contravention of the laws of Canada or the Province of Ontario including the Ontario Electrical Safety Code;
- (b) violation of conditions in a distributor's licence;
- (c) materially adverse effect on the reliability or safety of the distribution system;
- (d) imposition of an unsafe worker situation beyond normal risks inherent in the operation of the distribution system;
- (e) a material decrease in the efficiency of the distributor's distribution system;
- (f) a materially adverse effect on the quality of distribution services received by an existing connection; and
- (g) if the person requesting the connection owes the distributor money for distribution services, or for non-payment of a security deposit. The distributor shall give the person a reasonable opportunity to provide the security deposit consistent with section 2.4.20.

3.1.2 A distributor shall ensure that all electrical connections to its system meet the distributor's design requirements, unless the electrical connections are separated by a protection device that has been approved by the distributor. If an electrical connection does not meet the distributor's design requirements, a distributor may refuse connection.

3.1.3 If a distributor refuses to connect a customer, the distributor shall inform the person requesting the connection of the reason(s) for not connecting and, where the distributor is able to provide a remedy, make an offer to connect. If the distributor is unable to provide a remedy to resolve the issue, it is the responsibility of the customer to do so before a connection may be made.

3.1.4 For residential customers, a distributor shall define a basic connection and recover the cost of the basic connection as part of its revenue requirement. The basic connection for each customer shall include, at a minimum:

- (a) supply and installation of overhead distribution transformation capacity or an equivalent credit for transformation equipment; and
- (b) up to 30 meters of overhead conductor or an equivalent credit for underground services.

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- 3.1.5 For non-residential customers, a distributor may define a basic connection by rate class and recover the cost of connection either as part of its revenue requirement, or through a basic connection charge to the customer.
- 3.1.6 All customer classes shall be subject to a variable connection charge to be calculated as the costs associated with the installation of connection assets above and beyond the basic connection. A distributor may recover this amount from a customer through a connection charge or equivalent payment.

3.2 Expansions

- 3.2.1 If a distributor must construct new facilities to its main distribution system or increase the capacity of existing distribution system facilities in order to be able to connect a specific customer or group of customers, the distributor shall perform an initial economic evaluation based on estimated costs and forecasted revenues, as described in Appendix B, of the expansion project to determine if the future revenue from the customer(s) will pay for the capital cost and on-going maintenance costs of the expansion project.
- 3.2.2 If the distributor's offer was an estimate, the distributor shall carry out a final economic evaluation once the facilities are energized. The final economic evaluation shall be based on forecasted revenues, actual costs incurred (including, but not limited to, the costs for the uncontestable work, and any transfer price paid by the distributor to the customer) and the methodology described in Appendix B.
- 3.2.3 If the distributor's offer was a firm offer, and if the alternative bid option was chosen and the facilities are transferred to the distributor, the distributor shall carry out a final economic evaluation once the facilities are energized. The final economic evaluation shall be based on the amounts used in the firm offer for costs and forecasted revenues, any transfer price paid by the distributor to the customer, and the methodology described in Appendix B.
- 3.2.4 The capital contribution that a distributor may charge a customer other than a generator or distributor to construct an expansion shall not exceed that customer's share of the difference between the present value of the projected capital costs and on-going maintenance costs for the facilities and the present value of the projected revenue for distribution services provided by those

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facilities. The methodology and inputs that a distributor shall use to calculate this amount are described in Appendix B.

3.2.5 The capital contribution that a distributor may charge a generator to construct an expansion to connect a generation facility to the distributor's distribution system shall not exceed the generator's share of the present value of the projected capital costs and on-going maintenance costs for the facilities. Projected revenue and avoided costs from the generation facility shall be assumed to be zero, unless otherwise determined by rates approved by the Board. The methodology and inputs that a distributor shall use to calculate this amount are described in Appendix B.

3.2.5A Notwithstanding section 3.2.5 but subject to section 3.2.5B, a distributor shall not charge a generator to construct an expansion to connect a renewable energy generation facility:

- (a) if the expansion is in a Board-approved plan filed with the Board by the distributor pursuant to the deemed condition of the distributor's licence referred to in paragraph 2 of subsection 70(2.1) of the Act, or is otherwise approved or mandated by the Board; or
- (b) in any other case, for any costs of the expansion that are at or below the renewable energy generation facility's renewable energy expansion cost cap.

For greater clarity, the distributor shall bear all costs of constructing an expansion referred to in (a) and, in the case of (b), shall bear all costs of constructing the expansion that are at or below the renewable energy generation facility's renewable energy expansion cost cap.

3.2.5B Where an expansion is undertaken in response to a request for the connection of more than one renewable energy generation facility, a distributor shall not charge any of the requesting generators to construct the expansion:

- (a) if the expansion is in a Board-approved plan filed with the Board by the distributor pursuant to the deemed condition of the distributor's licence referred to in paragraph 2 of subsection 70(2.1) of the Act, or is otherwise approved or mandated by the Board; or
- (b) in any other case, for any costs of the expansion that are at or below the amount that results from adding the total name-plate rated capacity of each renewable energy generation facility referred to in section 6.2.9(a) (in MW) and then multiplying that number by \$90,000.

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For greater clarity, the distributor shall bear all costs of constructing an expansion referred to in (a) and, in the case of (b), shall bear all costs of constructing the expansion that are at or below the number that results from the calculation referred to in (b).

- 3.2.5C Where, in accordance with the calculation referred to in section 3.2.5B(b), a capital contribution is payable by the requesting generators, the distributor shall apportion the amount of the capital contribution among the requesting generators on a pro-rata basis based on the total name-plate rated capacity of the renewable energy generation facility referred to in section 6.2.9(a) (in MW).
- 3.2.6 If a shortfall between the present value of the projected costs and revenues is calculated under section 3.2.1, the distributor may propose to collect all or a portion of that amount from the customer in the form of a capital contribution, in accordance with the distributor's documented policy on capital contributions by customer class.
- 3.2.7 If the capital contribution amount resulting from the final economic evaluation provided for in section 3.2.2 or 3.2.3 differs from the capital contribution amount resulting from the initial economic evaluation calculation, the distributor shall obtain from the customer, or credit the customer for, any difference between the two calculations.
- 3.2.8 If an expansion is needed in order for a distributor to connect a customer, the distributor shall make an initial offer to connect the customer and build the expansion. A distributor's initial offer shall include, at no cost to the customer:
- (a) a statement as to whether the offer is a firm offer or is an estimate of the costs that would be revised in the future to reflect actual costs incurred;
 - (b) a reference to the distributor's Conditions of Service and information on how the customer requesting the connection may obtain a copy of them;
 - (c) a statement as to whether a capital contribution will be required from the customer;
 - (d) a statement as to whether an expansion deposit will be required from the customer and if the distributor will require an expansion deposit from the customer, the amount of the expansion deposit that the customer will have to provide; and
 - (e) a statement as to whether the connection charges referred to in sections 3.1.5 and 3.1.6 will be charged separately from the capital contribution

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referred to in section 3.2.8(c), and a description of, and if known, the amount for, those connection charges.

- 3.2.9 If the distributor will require a customer to pay a capital contribution, the distributor must, in addition to complying with section 3.2.8, also include in its initial offer, at no cost to the customer:
- (a) the amount of the capital contribution that the customer will have to pay for the expansion;
 - (b) the calculation used to determine the amount of the capital contribution to be paid by the customer including all of the assumptions and inputs used to produce the economic evaluation as described in Appendix B;
 - (c) a statement as to whether the offer includes work for which the customer may obtain an alternative bid and, if so, the process by which the customer may obtain the alternative bid;
 - (d) a description of, and costs for, the contestable work and the uncontestable work associated with the expansion broken down into the following categories:
 - (i) labour (including design, engineering and construction);
 - (ii) materials;
 - (iii) equipment; and
 - (iv) overhead (including administration);
 - (e) an amount for any additional costs that will occur as a result of the alternative bid option being chosen (including, but not limited to, inspection costs);
 - (f) if the offer is for a residential customer, a description of, and the amount for, the cost of the basic connection referred to in section 3.1.4 that has been factored into the economic evaluation; and
 - (g) if the offer is for a non-residential customer and 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 that have been factored into the economic evaluation.
- 3.2.10 Once the customer has accepted the distributor's offer, and if the customer requests it, the distributor shall provide to the customer, at cost, an itemized list

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of the costs for the major items in each of the categories listed in section 3.2.9(d) and shall be done in the following manner:

- (a) if the customer has not chosen to pursue an alternative bid, the distributor shall provide the itemized list for all of the work; or
- (b) if the customer has chosen to pursue the alternative bid option, the distributor shall only be required to provide the itemized list for the uncontestable work.

3.2.11 If the customer submits revised plans or requires additional design work, the distributor may provide, at cost, a new offer based on the revised plans or the additional design work.

3.2.12 The distributor shall provide the customer with the calculation used to determine the final capital contribution amount including all of the assumptions and inputs used to produce the final economic evaluation as provided for in sections 3.2.2 and 3.2.3. The distributor shall provide the final economic evaluation and final capital contribution amount to the customer at no cost to the customer.

3.2.13 The last sentence of section 3.2.12 does not apply to a customer who is a generator or is proposing to become a generator unless the customer's proposed or existing generation facility is an emergency backup generation facility.

3.2.14 Where the distributor requires a capital contribution from the customer, the distributor shall allow the customer to obtain and use alternative bids for the contestable work. The distributor shall require the customer to use a qualified contractor for the contestable work.

3.2.15 The following work shall be uncontestable:

- (a) the preliminary planning, design and engineering specifications of the work required for the distribution system expansion and connection (specifications shall be made in accordance with the distributor's design and technical standards and specifications); and
- (b) work involving existing distributor assets.

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3.2.16 If a customer chooses to pursue an alternative bid and uses the services of a qualified contractor for the contestable work, the distributor shall:

- (a) require the customer to complete all of the contestable work;
- (b) require the customer to:
 - (i) select and hire the contractor;
 - (ii) pay the contractor's costs for the contestable work; and
 - (iii) assume full responsibility for the construction of that aspect of the expansion;
- (c) require the customer to be responsible for administering the contract (including the acquisition of all required permissions, permits and easements) or have the customer pay the distributor to do this activity;
- (d) require the customer to ensure that the contestable work is done in accordance with the distributor's design and technical standards and specifications; and
- (e) inspect and approve, at cost, all aspects of the constructed facilities as part of a system commissioning activity, prior to connecting the constructed facilities to the existing distribution system.

3.2.17 In addition to the capital contribution amounts in sections 3.2.4 and 3.2.5, the distributor may also charge a customer that chooses to pursue an alternative bid any costs incurred by the distributor associated with the expansion including, but not limited to, the following:

- (a) costs for additional design, engineering, or installation of facilities required to complete the project;
- (b) costs for administering the contract between the customer and the contractor hired by the customer if the distributor is asked to do so by the customer and the distributor agrees to do it; and
- (c) costs for inspection or approval of the work performed by the contractor hired by the customer.

When the customer transfers the expansion facilities to the distributor in accordance with section 3.2.18 and 3.2.19, the charges referred to above shall be included as part of the customer's costs for the purposes of determining the transfer price.

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- 3.2.18 When the customer transfers the expansion facilities that were constructed under the alternative bid option to the distributor, and provided that the distributor has inspected and approved the constructed facilities, the distributor shall pay the customer a transfer price. The transfer price shall be the lower of the cost to the customer to construct the expansion facilities or the amount set out in the distributor's initial offer to do the contestable work. If the customer does not provide the distributor with the customer's cost information in a timely manner, then the distributor may use the amount for the contestable work as set out in its initial offer for the transfer price instead of the customer's cost.
- 3.2.19 Where a distributor is required to pay a transfer price under section 3.2.18, the transfer price shall be considered a cost to the distributor for the purposes of completing the final economic evaluation.
- 3.2.20 For expansions that require a capital contribution, a distributor may require the customer to provide an expansion deposit for up to 100% of the present value of the forecasted revenues as described in Appendix B. For expansions that do not require a capital contribution, a distributor may require the customer to provide an expansion deposit for up to 100% of the present value of the projected capital costs and on-going maintenance costs of the expansion project.
- 3.2.21 If an expansion deposit is collected under section 3.2.20, the expansion deposit shall cover both the forecast risk (the risk associated with whether the projected revenue for the expansion will materialize as forecasted) and the asset risk (the risk associated with ensuring that the expansion is constructed, that it is completed to the proper design and technical standards and specifications, and that the facilities operate properly when energized) related to the expansion.
- 3.2.22 If the alternative bid option was chosen, a distributor shall be allowed to retain and use the expansion deposit to cover the distributor's costs if the distributor must complete, repair, or bring up to standard the facilities. Complete, repair, or bring up to standard includes costs the distributor incurs to ensure that the expansion is completed to the proper design and technical standards and specifications, and that the facilities operate properly when energized.
- 3.2.23 Once the facilities are energized and subject to sections 3.2.22 and 3.2.24, the distributor shall annually return the percentage of the expansion deposit in

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proportion to the actual connections (for residential developments) or actual demand (for commercial and industrial developments) that materialized in that year (i.e., if twenty percent of the forecasted connections or demand materialized in that year, then the distributor shall return to the customer twenty percent of the expansion deposit). This annual calculation shall only be done for the duration of the customer connection horizon as defined in Appendix B. If at the end of the customer connection horizon the forecasted connections (for residential developments) or forecasted demand (for commercial and industrial developments) have not materialized, the distributor shall be allowed to retain the remaining portion of the expansion deposit.

3.2.24 If the alternative bid option was chosen, the distributor may retain up to ten percent of the expansion deposit for a warranty period of up to two years. This portion of the expansion deposit can be applied to any work required to repair the expansion facilities within the two year warranty period. The two year warranty period begins:

- (a) when the last forecasted connection in the expansion project materializes (for residential developments) or the last forecasted demand materializes (for commercial and industrial developments); or
- (b) at the end of the customer connection horizon as defined in Appendix B,

whichever is first. The distributor shall return any remaining portion of this part of the expansion deposit at the end of the two year warranty period.

3.2.25 Any expansion deposit required under section 3.2.20 shall be in the form of cash, letter of credit from a bank as defined in the *Bank Act*, or surety bond. The distributor shall allow the customer to select the form of the expansion deposit.

3.2.26 Where any expansion deposit is in the form of cash, the distributor shall return the expansion deposit to the customer together with interest in accordance with the following conditions:

- (a) interest shall accrue monthly on the expansion deposit commencing on receipt of the total deposit required by the distributor; and
- (b) the interest rate shall be at the Prime Business Rate set by the Bank of Canada less 2 percent.

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3.2.27 Unforecasted customers that connect to the distribution system during the customer connection horizon as defined in Appendix B will benefit from the earlier expansion and should contribute their share. In such an event, the initial contributors shall be entitled to a rebate from the distributor. A distributor shall collect from the unforecasted customers an amount equal to the rebate the distributor shall pay to the initial contributors. The amount of the rebate shall be determined as follows:

- (a) for a period of up to the customer connection horizon as defined in Appendix B, the initial contributor shall be entitled to a rebate without interest, based on apportioned benefit for the remaining period; and
- (b) the apportioned benefit shall be determined by considering such factors as the relative load level and the relative line length (in proportion to the line length being shared by both parties).

3.2.27A Notwithstanding section 3.2.27, when the unforecasted customer is a renewable energy generation facility to which section 3.2.5A or 3.2.5B applies and the customer entitled to a rebate under section 3.2.27 is a load customer or a generation customer to which neither section 3.2.5A nor 3.2.5B applies, the initial contributors shall be entitled to a rebate from the distributor in an amount determined in accordance with section 3.2.27. The distributor shall reduce the connecting renewable energy generation facility's renewable energy expansion cost cap by an amount equal to the rebate. If the amount of the rebate exceeds the connecting renewable generation facility's renewable energy expansion cost cap, the distributor shall also collect the difference from the connecting renewable energy generation customer.

3.2.28 A distributor shall prepare all estimates and offers required by section 3.2 in accordance with good utility practice and industry standards.

3.2.29 The distributor shall perform all of its responsibilities and obligations under section 3.2 in a timely manner.

3.2.30 An expansion of the main distribution system includes:

- (a) building a new line to serve the connecting customer;
- (b) rebuilding a single-phase line to three-phase to serve the connecting customer;

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- (c) rebuilding an existing line with a larger size conductor to serve the connecting customer;
- (d) rebuilding or overbuilding an existing line to provide an additional circuit to serve the connecting customer;
- (e) converting a lower voltage line to operate at higher voltage;
- (f) replacing a transformer to a larger MVA size;
- (g) upgrading a voltage regulating transformer or station to a larger MVA size;
and
- (h) adding or upgrading capacitor banks to accommodate the connection of the connecting customer.

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3.3 Enhancements

3.3.1 A distributor shall continue to plan and build the distribution system for reasonable forecast load growth. A distributor may perform enhancements to its distribution system for purposes of improving system operating characteristics or for relieving system capacity constraints. In determining system enhancements to be performed on its distribution system, a distributor shall consider the following:

- (a) good utility practice;
- (b) improvement of the system to either meet or maintain required performance-based indices;
- (c) current levels of customer service and reliability and potential improvement from the enhancement; and
- (d) costs to customers associated with distribution reliability and potential improvement from the enhancement.

3.3.2 Renewable enabling improvements to the main distribution system to accommodate the connection of renewable energy generation facilities are limited to the following:

- (a) modifications to, or the addition of, electrical protection equipment;
- (b) modifications to, or the addition of, voltage regulating transformer controls or station controls;
- (c) the provision of protection against islanding (transfer trip or equivalent);
- (d) bidirectional reclosers;
- (e) tap-changer controls or relays;
- (f) replacing breaker protection relays;
- (g) Supervisory Control and Data Acquisition system design, construction and connection;
- (h) any other modifications or additions to allow for and accommodate 2-way electrical flows or reverse flows; and

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- (i) communication systems to facilitate the connection of renewable energy generation facilities.
- 3.3.3 Subject to section 3.3.4, the distributor shall bear the cost of constructing an enhancement or making a renewable enabling improvement, and therefore shall not charge:
- (a) a customer a capital contribution to construct an enhancement; or
 - (b) a customer that is connecting a renewable energy generation facility a capital contribution to make a renewable enabling improvement.
- 3.3.4 Section 3.3.3(a) shall not apply to a distributor until the distributor's rates are set based on a cost of service application for the first time following the 2010 rate year.

3.4 Relocation of Plant

- 3.4.1 When requested to relocate distribution plant, a distributor shall exercise its rights and discharge its obligations in accordance with existing legislation such as the *Public Service Works on Highways Act*, regulations, formal agreements, easements and common law. In the absence of existing arrangements, a distributor is not obligated to relocate the plant. However, the distributor shall resolve the issue in a fair and reasonable manner. Resolution in a fair and reasonable manner shall include a response to the requesting party that explains the feasibility or infeasibility of the relocation and a fair and reasonable charge for relocation based on cost recovery principles.

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4 OPERATIONS

4.1 Quality of Supply

- 4.1.1 A distributor shall follow good utility practice in managing the power quality of the distributor's distribution system and define in its Conditions of Service the quality of service standards to which the distribution system is designed and operated.
- 4.1.2 A distributor shall maintain a voltage variance standard in accordance with the standards of the Canadian Standards Association CAN3-235. A distributor shall practice reasonable diligence in maintaining voltage levels, but is not responsible for variations in voltage from external forces, such as operating contingencies, exceptionally high loads and low voltage supply from the transmitter or host distributor.
- 4.1.3 Subject to section 4.7, a distributor shall respond to and take reasonable steps to investigate all consumer power quality complaints and report to the consumer on the results of the investigation.
- 4.1.4 Except in relation to an investigation conducted under section 4.7, if the source of a power quality problem is caused by the consumer making the complaint, the distributor may seek reimbursement for the time and cost spent to investigate the complaint.
- 4.1.5 A distributor shall take appropriate actions to control harmonic distortions found to be detrimental to consumers connected to the distribution system. If the distributor is unable to correct a problem without adversely impacting other distribution system consumers, a distributor may choose not to make the corrections. In deciding which actions to take, a distributor should use appropriate industry standards and good utility practice as guidelines.
- 4.1.6 A distributor shall require a consumer or customer that owns equipment connected to the distribution system to take reasonable steps to ensure that the operation or failure of that equipment does not cause a distribution system outage or disturbance.
- 4.1.7 A distributor may require that any consumer or customer condition that adversely affects the distribution system be corrected immediately by the consumer or customer at the consumer's or customer's cost.

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4.1.8 A distributor may direct a consumer or customer connected to its distribution system to take corrective or preventive action on the consumer's or customer's electric system when there is a direct hazard to the public or the consumer or customer is causing or could cause adverse effects to the reliability of the distributor's distribution system. If the situation is not corrected, the distributor may disconnect the consumer or customer in accordance with its disconnection policy.

4.2 Disconnection and Reconnection

4.2.1 A distributor shall establish a process for disconnection and reconnection that specifies timing and means of notification consistent with the Electricity Act, 1998. In developing physical and business processes for reconnection, a distributor shall consider safety and reliability as a primary requirement. A distributor shall document its business process for disconnection in the distributor's Conditions of Service.

4.2.1.1 Without limiting the generality of the foregoing, prior to disconnecting a property for non-payment, a distributor shall provide to any person that, according to the distributor's Conditions of Service, receives notice of the disconnection:

- (a) the Fire Safety Notice of the Office of the Fire Marshal; and
- (b) any other public safety notices or information bulletins issued by public safety authorities and provided to the distributor, which provide information to consumers respecting dangers associated with the disconnection of electricity service.

4.2.1.2 A distributor shall include a copy of the notices or bulletins referred to in s. 4.2.1.1 along with any notice of disconnection that is left at the property at the time of actual disconnection for non-payment.

4.2.2 A distributor shall inform a customer responsible for an overdue amount that it may be disconnected in accordance with section 31(2) of the *Electricity Act, 1998*.

4.2.3 It is recommended that, whenever possible, distributors provide no less than seven calendar days notice before disconnection for non-payment.

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- 4.2.4 A distributor may disconnect without notice in accordance with a court order or for emergency, safety or system reliability reasons.
- 4.2.5.1 The physical process by which a distributor disconnects or reconnects shall reflect good utility practice and consider safety as a primary requirement.
- 4.2.5.2 A distributor may recover from the customer responsible for the disconnection reasonable costs associated with disconnection, including overdue amounts payable by the customer. A distributor may recover from the customer responsible for the disconnection reasonable costs for repairs of the distributor's physical assets attached to the property in reconnecting the property.
- 4.2.5.3 A distributor may recover from the person requesting the reconnection any Board approved reconnection charges.
- 4.2.6 In establishing its disconnection policy as specified in its Conditions of Service, consistent with section 30 and 31 of the Electricity Act and good utility practice, a distributor may consider the following reasons for disconnection:
- Adverse effect on the reliability and safety of the distribution system.
 - Imposition of an unsafe worker situation beyond normal risks inherent in the operation of the distribution system.
 - A material decrease in the efficiency of the distributor's distribution system.
 - A materially adverse effect on the quality of distribution services received by an existing connection.
 - Inability of the distributor to perform planned inspections and maintenance.
 - Failure of the consumer or customer to comply with a directive of a distributor that the distributor makes for purposes of meeting its licence obligations.
 - The customer owes the distributor money for distribution services, or for a security deposit. The distributor shall give the customer a reasonable opportunity to provide the security deposit consistent with section 2.4.20.”

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4.3 Unauthorized Energy Use

- 4.3.1 A distributor shall use its discretion in taking action to mitigate unauthorized energy use. Upon identification of possible unauthorized energy use, a distributor shall notify, if appropriate, Measurement Canada, the Electrical Safety Authority, police officials, retailers that service consumers affected by the unauthorized energy use, or other entities.
- 4.3.2 A distributor shall monitor losses and unaccounted for energy use on an annual basis to detect any upward trends that may indicate the need for management policies to moderate unauthorized energy use.
- 4.3.3 A distributor may recover from the customer responsible for the unauthorized energy use all reasonable costs incurred by the distributor arising from unauthorized energy use.

4.4 System Inspection Requirements and Maintenance

- 4.4.1 A distributor shall maintain its distribution system in accordance with good utility practice and performance standards to ensure reliability and quality of electricity service, on both a short-term and long-term basis.
- 4.4.2 A distributor shall perform inspection activities of its distribution system in accordance with the requirements in Appendix C attached to this Code.
- 4.4.3 A distributor shall perform more frequent inspections if warranted due to local conditions such as geographic location, climate, environmental conditions, technologies available to perform the inspection, type and vintage of distribution technology in place, manufacturer specifications, system design or relative importance to overall system reliability of a particular piece of equipment or portion of the distributor's distribution system.
- 4.4.4 A distributor shall perform inspection activities using persons qualified to identify the types of defects that could be discovered during such inspection activities. Persons performing inspection activities shall be trained to protect both themselves and the public, and to respond to emergencies that may arise as a result of inspection activities.

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- 4.4.5 A distributor shall address any defects discovered during the inspection activities within a reasonable period of time after the discovery of the defect. A distributor shall address a defect by scheduling a more detailed inspection, by planning repair activities or by performing any other action that is an affirmative response to the discovery of the defect. A distributor shall have an internal review procedure to ensure that the identified defects and follow-up activities have been addressed appropriately.
- 4.4.6 A distributor shall determine the methodology by which inspection cycles are structured and the manner in which defects identified during inspection activities are to be repaired in accordance with good utility practice.
- 4.4.7 A distributor shall notify consumers regarding the expected duration and frequency of planned outages and provide as much advance notice as possible. A distributor shall make all reasonable efforts to minimize the duration and frequency of planned outages. The distributor's policies and procedures with respect to planned outages shall be described in the Conditions of Service.

4.5 Unplanned Outages and Emergency Conditions

- 4.5.1 A distributor may require a consumer or customer or a party to a joint use agreement to comply with reasonable and appropriate instructions from the distributor during an unplanned outage or emergency situation.
- 4.5.2 To assist with distribution system outages or emergency response, a distributor may require a customer to provide the distributor emergency access to customer-owned distribution equipment that normally is operated by the distributor or distributor-owned equipment on customer property.
- 4.5.3 During an emergency, a distributor may interrupt supply to a consumer in response to a shortage of supply or to effect repairs on the distribution system or while repairs are being made to consumer-owned equipment.
- 4.5.4 A distributor may require consumers or customers with permanently connected emergency backup generation facility to notify the distributor regarding the presence of such equipment.

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- 4.5.5 A distributor shall require that a consumer's or customer's portable or permanently connected emergency backup generation facility complies with all applicable criteria of the Ontario Electrical Safety Code and does not adversely affect the distributor's distribution system.
- 4.5.6 A distributor shall develop and maintain appropriate emergency plans in accordance with the requirements of the Minister of Energy, Science and Technology and in the Market Rules, regardless of whether the distributor is a wholesale market participant. A distributor's emergency plan shall include, at a minimum, mutual assistance plans with neighbouring distributors or other measures to respond to a wide-spread emergency.
- 4.5.7 A distributor shall establish outage management policies that include the following:
- Arrangements for on-call personnel in accordance with good utility practice.
 - Establishment and operation of a call centre or equivalent telephone service to provide consumers with available information regarding an outage.
 - Identification of the location of distribution circuits for emergency services and critical customers such as hospitals, water supply, health care facilities, and designated emergency shelters for coordination with other agencies.

4.6 Health and Safety and Environment

- 4.6.1 A distributor shall follow good utility practices in operating and maintaining the distribution system and shall abide by safety rules and regulations that apply to routine utility work, including but not limited to the *Occupational Health & Safety Act* R.S.O. 1990 and any associated regulations.
- 4.6.2 A distributor shall be a member of an industry-specific, recognized health and safety organization in Ontario.
- 4.6.3 A distributor shall implement an industry recognized health and safety program that includes training and regularly conducted audits. This program also will include Public Education and Public Safety initiatives.

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- 4.6.4 Any problems that a distributor identifies as part of the audit shall be remedied as soon as possible or in accordance with the distributor's health and safety program.
- 4.6.5 A distributor shall have a corporate policy that addresses environmental stewardship that applies to all of the distributor's operations. A documented program supporting procedures and appropriate training should be in place to ensure compliance with environmental regulations and indicate a proactive approach to environmental damage avoidance.

4.7 Farm Stray Voltage

4.7.1 In this section 4.7:

- ACC—means animal contact current, being the steady state 60 Hz (including harmonics thereof) root mean square alternating current when measured through a 500 Ohm resistor connected between animal contact points;
- ACV—means animal contact voltage, being the steady state 60 Hz (including harmonics thereof) root mean square alternating current voltage when measured in parallel with a 500 Ohm resistor connected between animal contact points;
- “farm stray voltage” means ACC or ACV occurring at a location on a farm where livestock make contact with it; and
- “livestock farm customer” in respect of a distributor means any customer of the distributor that is engaged principally in livestock husbandry in an area zoned for agricultural use.

4.7.2 A distributor shall initiate a farm stray voltage investigation using the procedure set out in Appendix H where a livestock farm customer provides the distributor with information that reasonably indicates that farm stray voltage may be adversely affecting the operation of the livestock farm customer's farm.

4.7.3 Where an investigation initiated under section 4.7.2 reveals that either:

- a) ACC on the farm exceeds 2.0 milliamperes; or

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b) ACV on the farm exceeds 1.0 volt,

the distributor shall conduct tests in accordance with the investigation procedure set out in Appendix H to determine whether and the extent to which the distributor's distribution system is contributing to farm stray voltage measured on the farm.

- 4.7.4 Where the tests referred to in section 4.7.3 reveal that the distributor's distribution system is contributing more than 1 mA ACC or 0.5 V ACV to farm stray voltage on a farm, the distributor shall take such steps as may be required to ensure that such contribution does not exceed 1 mA ACC or 0.5 V ACV.
- 4.7.5 A distributor shall ensure that persons responsible for investigating, analyzing and determining the appropriate means of remediating farm stray voltage situations on the distributor's behalf for the purposes of meeting the distributor's obligations under this section 4.7 have competency in performing these activities. Competency may be based on recognized qualification requirements that include a training course that meets the requirements of the tasks to be performed. Services provided in relation to these activities by a person that does not have the recognized qualification requirements shall be reviewed, affirmed and documented by a person with exhibited competency.
- 4.7.6 A distributor serving livestock farm customers shall document, post on its web site and otherwise make available to any person on request, and file with the Board upon request, a farm stray voltage customer response procedure that describes the steps involved in the distributor's response to farm stray voltage complaints and inquiries. At a minimum, the customer response procedure must indicate:
- a) how and to whom farm stray voltage complaints and inquiries should be made by livestock farm customers;
 - b) the types of information required by the distributor regarding the basis of the livestock farm customer's concern that ACC/ACV from the distributor's system is affecting farm operations; and
 - c) the estimated amount of time the distributor requires following receipt of a complaint or inquiry to contact the livestock farm customer for the purpose of scheduling a site visit for the purpose of initiating an investigation where an investigation is required.

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4.7.7 A distributor shall record, retain for a period of five years and provide to the Board, on request and in the form and manner required by the Board, the following information:

- a) the name and contact information of each livestock farm customer that submits a farm stray voltage complaint to the distributor, the date of the complaint and the date on which the matter was considered closed by the distributor; and
- b) for each farm stray voltage investigation initiated by the distributor:
 - site information for the livestock farm customer's farm, including location; the identity and design characteristics of the circuit(s) supplying the site; and distance of the site from the circuit substation and from the end of the circuit;
 - an investigation report prepared in accordance with Appendix H, together with all other documentation required by Appendix H to be prepared; and
 - identified ACC or ACV source(s) and distribution system contribution levels; any remediation measures taken; and the total cost of the investigation and of any remediation measures taken.

4.7.8 A distributor serving livestock farm customers shall, not less than annually, provide written notice to all livestock farm customers in its service area describing how they can obtain the following from the distributor:

- a) information on what farm stray voltage is, what causes it, and common ways of addressing distribution system contributions to it;
- b) a copy of the distributor's farm stray voltage customer response procedure referred to in section 4.7.6; and
- c) a copy of the distributor's dispute resolution process set out in its Conditions of Service.

Such notice may be given by including an insert with at least one bill submitted to livestock farm customers or by any other means as may reasonably be expected to bring the information to the attention of livestock farm customers. Posting of the information or of notice of the availability of the information on the distributor's website alone shall not constitute sufficient written notice for the purposes of this section.

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5 METERING

5.1 Provision of Meters and Metering Services

- 5.1.1 A distributor shall provide, install and maintain a meter installation for retail settlement and billing purposes for each customer connected to the distributor's distribution system, subject to section 5.2.3.
- 5.1.2 A distributor may install a demand meter or interval meter for purposes of measuring demand in order to assign the customer to a rate class or to set the appropriate distribution services rate for that customer.
- 5.1.3 As of the date this Code comes into force a distributor shall have six months to provide a MIST meter installation for any existing customer that has an average monthly peak demand during a calendar year of over 1 MW. A distributor shall install a MIST meter on any new installation that is forecast by the distributor to have a monthly average peak demand during a calendar year of over 500 kW, for the purposes of measuring energy delivered to the customer.
- 5.1.4 A distributor may set a threshold level for installation of MIST meters other than that required by section 5.1.3. as long as the threshold is delineated by customer class in the distributor's Conditions of Service and sets a threshold lower than that required by section 5.1.3.
- 5.1.5 A distributor shall provide an interval meter within a reasonable period of time to any customer who submits to it a written request for such meter installation, either directly or through an authorized party, in accordance with the Retail Settlement Code, subject to the following conditions:
- The customer that requests interval metering shall compensate a distributor for all incremental costs associated with that meter, including the capital cost of the interval meter, installation costs associated with the interval meter, ongoing maintenance (including allowance for meter failure), verification and reverification of the meter, installation and ongoing provision of communication line or communication link with the customer's meter, and cost of metering made redundant by the customer requesting interval metering.
 - The distributor shall determine whether the meter will be a MIST or MOST meter, subject to the requirements of this Code.

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- A communication system utilized for MIST meters shall be in accordance with the distributor's requirements.
 - A communication line shall be required in the case of inside or restricted access meters.
- 5.1.6 A distributor shall identify in its Conditions of Service the type of meters that are available to a customer, the process by which a customer may obtain such meters and the types of charges that would be levied on a customer for each meter type.
- 5.1.7 For the purposes of sections 5.1.2 to 5.1.5 inclusive, a smart meter is not an interval meter.
- 5.1.8 Section 5.1.7 ceases to have effect in relation to a distributor on the date determined for that purpose by the Board.
- 5.1.9 When requested by either:
- (a) the board of directors of a condominium corporation; or
 - (b) the developer of a building, in any stage of construction, on land for which a declaration and description is proposed or intended to be registered pursuant to section 2 of the *Condominium Act, 1998*,

a distributor shall install smart metering that meets the functional specification of Ontario Regulation 425/06–*Criteria and Requirements for Meters and Metering Equipment, Systems and Technology* (made under the Electricity Act).

5.2 Metering Requirements for Generating Facilities

- 5.2.1 A distributor shall require that an embedded retail generator whose embedded generation facility has a gross name-plate capacity of more than 10 MW install a four-quadrant interval meter. A distributor shall require that a net metered generator (as defined in section 6.7.1) and an embedded retail generator whose embedded generation facility has a gross name-plate capacity of 10 MW or less install such metering as may reasonably be required having regard to:
- a. the meter data requirements necessary to enable the distributor to settle amounts owing to or from the embedded retail generator; and

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- b. the type of generation facility or generation technology of the embedded generation facility.
- 5.2.2 A distributor shall meter a customer with an embedded generation facility, other than an embedded retail generator or a net metered generator (as defined in section 6.7.1), in the same manner as the distributor's other load customers.
- 5.2.3 A distributor shall require that a customer with an embedded generation facility connected to the distributor's distribution system install its own meter in accordance with the distributor's metering requirements and provide the distributor with the technical details of the metering installation.
- 5.2.4 Where practical, metering for an embedded generation facility shall be installed at the point of supply. If it is not practical to install the meter at the point of supply, a distributor shall apply loss factors to the generation output in accordance with the loss factors applied for retail settlements and billing.

5.3 VEE Process

- 5.3.1 Metering data collected by a distributor shall be subjected to a validating, estimating and editing (VEE) process if it is to be used for settlement and billing purposes.
- 5.3.2 A distributor shall establish a VEE process according to local practice that is fair and reasonable and provides assurance that correct data is submitted to the settlement process. The VEE process shall do the following:
- Convert raw metering data into validated, corrected or estimated "settlement-ready" metering data suitable for use in determining settlement amounts in accordance with the settlement schedule in the Retail Settlement Code.
 - Detect errors in metering data introduced as a result of improper operational conditions and/or hardware/software malfunctions, including failures of or errors in metering or communication hardware, and metering data exceeding pre-defined variances or tolerances.
 - Use operational system data, including historical generation and load patterns and data collected by the distributor, as appropriate, for

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validating raw metering data, and for editing, estimating and correcting metering data found to be erroneous or missing.

- 5.3.3 A distributor's VEE process for data from non-interval and MOST meters shall compare energy and demand (if applicable) readings from at least one equivalent historical billing period. A distributor shall determine the appropriate bandwidths by customer class and specify other criteria used in the VEE process.
- 5.3.4 A distributor's VEE process for data from MIST meters shall consider industry standards specified by the IESO in its VEE process for registered wholesale meters.
- 5.3.5 A distributor shall document and make available its VEE process and criteria, and allow scrutiny of its process by customers, retailers, the Board and Measurement Canada.
- 5.3.6 A distributor shall comply with Measurement Canada standards as a minimum metering installation and measurement standard, and may apply any other practices that exceed those standards.
- 5.3.7 A distributor shall have an inspection program for complex [polyphase] metering installations and document the inspection and results of the inspection.
- 5.3.8 Where an embedded generation facility metering installation does not conform to Measurement Canada standards or the accuracy class of instrument transformers cannot be confirmed, a distributor shall require the embedded generation facility to have the metering installation, including instrument transformers, tested, and apply a Measurement Canada correction factor to meter readings until such time as standards conformance is achieved.
- 5.3.9 A distributor shall ensure that persons involved in metering services have competency in performing these services. Competency may be based on recognized qualification requirements that include a training course that meets the requirements of the tasks to be performed. Metering services provided by a person that does not have the recognized qualification requirements shall be reviewed, affirmed and documented by a person with exhibited competency.

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- 5.3.10 A distributor that provides metering services directly or through a Meter Service Provider shall exercise appropriate diligence in detecting and acting upon instances of tampering with metering and service entrance equipment. Upon identification of possible meter tampering, the distributor should notify, as appropriate, Measurement Canada, police officials, the Electrical Safety Authority, or other entities.
- 5.3.11 Nothing in this Code shall affect the obligation of a distributor to comply with all Measurement Canada requirements provided that, where this Code or other conditions of licence prescribe a higher standard than that prescribed in those requirements, the distributor shall comply with the higher standard.
- 5.3.12 A distributor shall respond to customer and retailer metering disputes, and shall establish a fair and reasonable charge for costs associated with resolution of these disputes. If the complaint is substantiated, the charge shall not be applied. In resolving the dispute, a distributor may use a qualified, independent organization at anytime during the dispute resolution process.
- 5.3.13 Notwithstanding any other provision of section 5.3, the VEE process for all data from a smart meter shall be completed by one or more of:
- a. the Smart Metering Entity;
 - b. the IESO, in its capacity, given by regulation, to plan, manage and implement the smart metering initiative or any aspect of that initiative; or
 - c. the distributor,
- as may be provided by, and in accordance with, the VEE process established by the Smart Metering Entity or the IESO.

5.4 Agreement with SME or IESO Relating to Metering

- 5.4.1 A distributor shall, upon being requested to do so, enter into an agreement with the Smart Metering Entity or the IESO, in a form approved by the Board, which sets out the respective roles and responsibilities of the distributor and the Smart Metering Entity or the IESO in relation to metering and the information required to

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be exchanged to allow for the conduct of these respective roles and responsibilities.

6 DISTRIBUTORS' RESPONSIBILITIES

6.1 Responsibilities to Load Customers

This section applies to load customers other than customers with existing or proposed embedded generation facilities that are not emergency backup generation facilities, and embedded distributors.

- 6.1.1 A distributor shall make every reasonable effort to respond promptly to a customer's request for connection. In any event a distributor shall respond to a customer's written request for a customer connection within 15 calendar days. A distributor shall make an offer to connect within 60 calendar days of receipt of the written request, unless other necessary information is required from the load customer before the offer can be made.
- 6.1.2 A distributor has an implied contract with any customer that is connected to the distributor's distribution system and receives distribution services from the distributor. The terms of the implied contract are embedded in the distributor's Conditions of Service, the Rate Handbook, the distributor's rate schedules, the Distributor's licence and the Distribution System Code.
- 6.1.3 A distributor may require a customer to enter into a Connection Agreement with the distributor if the distributor believes that the customer has characteristics that require an explicit document to describe the relationship between the distributor and the customer. Suggested information to be included in the Connection Agreement with customers is listed in Appendix D.
- 6.1.4 A distributor shall enter into a Connection Agreement with a customer that is connected to the distributor's distribution system and is a wholesale market participant.
- 6.1.5 Before entering a property to carry out an activity described in section 40 of the *Electricity Act*, the person shall, in accordance with subsection 40(8) of the *Electricity Act*:
- provide reasonable notice of the entry to the occupier of the property;

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- in so far as is practicable, restore the property to its original condition; and
- provide compensation for any damages caused by the entry that cannot be repaired.

6.2 Responsibilities to Generators

6.2.1 Section 6.2 does not apply to the connection or operation of an emergency backup generation facility or an embedded generation facility that is used exclusively for load displacement purposes at all times.

6.2.2 A distributor shall enter into a Connection Agreement with all existing generators who have a generation facility connected to the distributor's distribution system and prior to connecting a new generation facility. Where a distributor does not have a Connection Agreement with an existing generator that has a generation facility connected to the distributor's distribution system, the distributor shall be deemed to have an implied contract with the generator. The terms of the implied contract are embedded in the distributor's Conditions of Service, the Rate Handbook, the distributor's rate schedules, the distributor's licence and the Distribution System Code.

Connection Process

6.2.3 A distributor shall promptly make available a generation connection information package (the "package") to any person who requests this package. The package shall contain the following information:

- a. the process for having a generation facility connected to the distributor's distribution system, including any form necessary for applying to the distributor;
- b. information regarding any approvals from the ESA, the IESO, OEB, or a transmitter that are required before the distributor will connect a generation facility to its distribution system;
- c. the technical requirements for being connected to the distributor's distribution system including the distributor's feeder and substation technical capacity limits as well as metering requirements;
- d. the standard contractual terms and conditions for being connected to the distributor's distribution system; and
- e. the name, telephone number and e-mail address of the distributor's representative for inquiries relating to the connection of embedded generation facilities.

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6.2.4 Subject to all applicable laws, a distributor shall make all reasonable efforts in accordance with the provisions of section 6.2 to promptly connect to its distribution system a generation facility which is the subject of an application for connection.

6.2.4.1 Subject to section 6.2.4.2, a distributor shall establish and maintain a capacity allocation process under which the distributor will process applications for the connection of embedded generation facilities. The capacity allocation process shall meet the following requirements:

- a. each application for connection, including an application under section 6.2.25a, will be allocated capacity only upon completion of the distributor's connection impact assessment, any required host distributor's connection impact assessment, and any required review of TS supply capability for the embedded generation facility;
- b. a connection impact assessment will not be completed for a proposed connection that can not be completed within the feeder and/or substation technical capacity limits of the distributor's distribution system, any host distributor's distribution system or the supply TS and transmission system, including capacity additions contained in any Board approved plans to increase the capacity of one or more of the distributor's distribution system, any host distributor's distribution system or the supply TS and transmission system;
- c. a connection impact assessment will not be completed unless the embedded generation facility which is the subject of the application meets the following requirements at the time the application is made:
 - demonstrated site control over the land on which the embedded generation facility is proposed to be located and any required adjacent or buffer lands in the form of property ownership (deed), long term lease (lease agreement) or an executed option to purchase or lease the land.
 - a proposed in-service date for the embedded generation facility which is no later than 5 years for water power projects or 3 years for all other types of projects from the initial date of application for connection or in accordance with the timelines in an executed OPA contract.

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- d. the distributor shall notify the applicant when its capacity allocation is granted;
 - e. an applicant shall have its capacity allocation removed if:
 - i. a connection cost agreement has not been signed in relation to the connection of the embedded generation facility within 6 months of the date on which the applicant received a capacity allocation for the proposed embedded generation facility;
 - ii. a new connection impact assessment is prepared for a proposed embedded generation facility under section 6.2.15 and the new assessment differs in a material respect from the original connection impact assessment prepared for that facility;
 - iii. any required deposits payable to the distributor pursuant to section 6.2.18A, 6.2.18B, or 6.2.18C have not been received by the date specified by the distributor;
 - iv. the distributor is informed by the OPA that the applicant has defaulted on an executed OPA contract; or
 - v. the applicant defaults on an executed connection cost agreement and fails to correct the default within 30 calendar days.
 - f. If any applicant has its capacity allocation removed in accordance with paragraph (e), the amount of any capacity allocation deposit and or additional capacity allocation deposit paid pursuant to the connection cost agreement requirements in section 6.2.18 shall be forfeited by the applicant and retained by the distributor in a deferral account for disposition by the Board. The amount of any unspent connection cost deposit shall be returned to the applicant in accordance with the requirements of section 6.2.18 G.
 - g. the distributor shall provide the applicant with two months' advance notice of the expiry of the 6-month period referred to in paragraph e prior to removing the capacity allocated to the applicant.
- 6.2.4.2 Section 6.2.4.1 does not apply to an application to connect a micro-embedded generation facility, a capacity allocation exempt small embedded generation facility, or an embedded generation facility that is not an embedded retail generation facility. Applications to connect to which the capacity allocation process does not apply, including by virtue of section 6.2.1, shall be processed by a distributor in accordance with this Code as and when received.

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6.2.4.3 Any application to connect a capacity allocation exempt small embedded generation facility that was received by a distributor prior to the date of coming into force of this section shall be processed by the distributor in accordance with the provisions of this Code applicable to such generation facilities as though the application to connect had been received by the distributor on the date of coming into force of this section.

Connection of Micro-Generation Facilities

6.2.5 A distributor shall require a person that applies for the connection of a micro-embedded generation facility to the distributor's distribution system to provide, upon making the application, the following information:

- a. the name-plate rated capacity of each unit of the proposed generation facility and the total name-plate rated capacity of the proposed generation facility at the connection point;
- b. the fuel type of the proposed generation facility;
- c. the type of technology to be used; and
- d. the location of the proposed generation facility including address and account number with the distributor where available.

6.2.6 Where the proposed micro-embedded generation facility is located at an existing customer connection, the distributor shall, within 15 days of receiving the application, make an offer to connect or provide reasons for refusing to connect the proposed generation facility. Where the proposed micro-embedded generation facility will be located other than at an existing customer connection, the distributor shall, within 60 days of receiving the application, make an offer to connect or provide reasons for refusing to connect the proposed generation facility. In either case, the distributor shall give the applicant at least 30 days to accept the offer to connect and the distributor shall not revoke the offer to connect until this time period has expired. The distributor shall not charge for the preparation of the offer to connect.

6.2.7 The distributor shall connect the applicant's micro-embedded generation facility to its distribution system within 5 days of the applicant informing the distributor that it has received all necessary approvals, providing the distributor with a copy of the authorization to connect from the ESA, entering into a Connection

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Agreement in the form set out in Appendix E and paying the distributor for the connection costs, including costs for any necessary new or modified metering.

Connection of other Generation Facilities

- 6.2.8 Sections 6.2.9 to 6.2.20 apply to the connection to a distribution system of an embedded generation facility which is not a micro-embedded generation facility.
- 6.2.8A Notwithstanding any other provision of this Code, a distributor shall, for the purposes of determining the connection feasibility of a capacity allocation exempt small embedded generation facility and of determining the impact of such facility on the distributor's distribution system and on any customers of the distributor, treat any capacity associated with a generation facility that has a capacity allocation referred to in section 6.2.4.1 as available capacity.
- 6.2.8B Where a distributor believes that, by virtue of the operation of section 6.2.8A, the connection of a capacity allocation exempt small embedded generation facility cannot reasonably be managed by the distributor without adversely affecting the capacity allocation of a generation facility, the distributor shall promptly so notify the Board in writing. In such a case, and notwithstanding any other provision of this Code, the distributor shall not take any further steps to connect the capacity allocation exempt small embedded generation facility without further direction from the Board.
- 6.2.9 Where a person who is considering applying for the connection of a generation facility to the distributor's distribution system requests a preliminary meeting with the distributor and provides the required information, the distributor shall provide a time when it is available to meet with the person which is within 15 days of the person providing the required information. For the purposes of this section, the following is the required information:
- a. the name-plate rated capacity of each unit of the proposed generation facility and the total name-plate rated capacity of the generation facility at the connection point;
 - b. the fuel type of the proposed generation facility;
 - c. the type of technology to be used; and
 - d. the proposed locations of the proposed generation facility including addresses and account numbers with the distributor where available.

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6.2.9.1 Upon request, a distributor shall provide the following to a person that has requested a meeting under section 6.2.9:

- a. a description of the portion of the distributor's distribution system relevant to the person's embedded generation facility, including the corresponding portions of an up-to-date system schematic map showing, at a minimum, the following:
 - major distribution and sub-transmission lines;
 - transformer and distribution stations;
 - the voltage levels used for distribution;
 - sufficient geographic references to enable the person to correlate all of the above features with a municipal road map; and
 - such other information as the Board may from time to time determine;
- b. subject to section 6.2.9.4, information on voltage level, fault level and minimum/maximum feeder loadings for up to three locations in the distributor's service area; and
- c. for each of the proposed locations included in the request, information about the amount of additional generation, above and beyond what is already connected and what capacity has already been allocated, that can be accommodated i) within the distributor's feeder and/or substation technical capacity limits; ii) within any host distributor's feeder and/or substation capacity limits; iii) within the transmitter's TS technical capacity limits; and iv) without exceeding the IESO's requirement for a SIA.

6.2.9.2 The distributor shall provide the information referred to in section 6.2.9.1 without charge and within the 15 days referred to in section 6.2.9.

6.2.9.3 Upon request, a distributor shall, subject to section 6.2.9.4, provide the information referred to in section 6.2.9.1(b) to a person that has requested a meeting under section 6.2.9 for one or more additional locations beyond the three required by section 6.2.9.1(b). The distributor shall use reasonable efforts to provide such information within the 15 days referred to in section 6.2.9, but shall in any event provide that information within a further 15 days. The distributor may recover from the person the reasonable costs incurred by the distributor in preparing the information for the additional locations.

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- 6.2.9.4 A distributor may withhold information on minimum/maximum feeder loadings where the distributor believes on reasonable grounds that the disclosure of such information could be used to identify the load characteristics of an existing customer and that the loading information is therefore commercially sensitive. A distributor shall, before deciding to withhold such information, make reasonable efforts to obtain the consent of the existing customer to the disclosure of the loading information.
- 6.2.10 At the preliminary meeting, the distributor shall discuss the basic feasibility of the proposed connection including discussing the location of existing distribution facilities in relation to the proposed generation facility and providing an estimate of the time and costs necessary to complete the connection. The distributor shall not charge for its preparation for and attendance at the meeting.
- 6.2.11 A distributor shall require a person who applies for the connection of a generation facility to the distributor's distribution system to, upon making the application, pay their impact assessment costs and provide the following information:
- a. evidence that the requirements set out in section 6.2.4.1(c) have been met;
 - b. the proposed point of common coupling with the distribution system;
 - c. the information set out in section 6.2.9 if this has not already been provided to the distributor;
 - d. a single line diagram of the proposed connection;
 - e. a preliminary design of the proposed interface protection; and
 - f. all necessary technical information required by the distributor to complete the connection impact assessment.
- 6.2.12 Subject to sections 6.2.4.1(b), 6.2.4.1(c) and 6.2.4.2, the distributor shall provide an applicant proposing to connect a small embedded generation facility with its assessment of the impact of the proposed generation facility, a detailed cost estimate of the proposed connection and an offer to connect within:
- a. 60 days of the receipt of the application where no distribution system reinforcement or expansion is required; and
 - b. 90 days of the receipt of the application where a distribution system reinforcement or expansion is required.
- An offer to connect made to an applicant proposing to connect a capacity allocation exempt small embedded generation facility may be revoked by the distributor if not accepted by the applicant within 60 days.
- 6.2.13 Subject to sections 6.2.4.1(b) and 6.2.4.1(c), the distributor shall provide its assessment of the impact of the proposed embedded generation facility within:

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- a. 60 days of the receipt of the application in the case of a proposal to connect a mid-sized embedded generation facility; and
 - b. 90 days of the receipt of the application in the case of a proposal to connect a large embedded generation facility.
- 6.2.14 The distributor's impact assessment shall set out the impact of the proposed embedded generation facility on the distributor's distribution system and any customers of the distributor including:
- a. any voltage impacts, impacts on current loading settings and impacts on fault currents;
 - b. the connection feasibility;
 - c. the need for any line or equipment upgrades;
 - d. the need for transmission system protection modifications; and
 - e. any metering requirements.
- 6.2.14A The distributor shall, within 10 days of initiating a connection impact assessment study, advise in writing any transmitter or distributor whose transmission or distribution system is directly connected to the specific feeder or substation to which the proposed embedded generation facility is proposing to connect. The distributor shall include in the written communication, at a minimum, the proposed in-service date, the rated capacity and type of technology of the proposed embedded generation facility. If the distributor requires a transmitter or host distributor to complete a TS review study or connection impact assessment, the distributor shall file an application with the transmitter or host distributor for such. A distributor will also inform the transmitter or distributor in writing on an ongoing basis of any change in status of the project including removing the capacity allocation for the project, material changes in the projected in-service date of the project or placing the project in service.
- 6.2.15 Any material revisions to the design, planned equipment or plans for the proposed embedded generation facility and connection shall be filed with the distributor and the distributor shall prepare a new impact assessment within the relevant time period set out in section 6.2.12 or 6.2.13. If the new impact assessment differs in a material respect from the original connection impact assessment for the project, the project shall have its capacity allocation removed in accordance with the requirements of section 6.2.4.1 (e) ii.

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- 6.2.16 In the case of an application for the connection of a mid-sized or large embedded generation facility, once the impact assessment is provided to the applicant, the distributor and the applicant have entered into an agreement on the scope of the project and the applicant has paid the distributor for the cost of preparing a detailed cost estimate of the proposed connection, the distributor shall provide the applicant with a detailed cost estimate and an offer to connect by the later of 90 days after the receipt of payment from the applicant and 30 days after the receipt of comments from a transmitter or distributor that has been advised under section 6.2.17.
- 6.2.17 Where a distributor is preparing a detailed cost estimate in accordance with section 6.2.16 with respect to a proposed large or mid-sized embedded generation facility, the distributor shall advise any transmitter or distributor whose transmission or distribution system is directly connected to the distributor's distribution system that it is preparing an estimate, within 10 days of receiving payment from the applicant. Where a distributor is preparing a detailed cost estimate in accordance with section 6.2.12 with respect to a proposed small embedded generation facility, the distributor shall, where the distributor believes a system directly connected to its system may be impacted by the proposed generation facility, advise any transmitter or distributor whose transmission or distribution system is directly connected to the distributor's distribution system that it is preparing an estimate, within 10 days of receiving payment from the applicant.
- 6.2.18 A distributor shall enter into a connection cost agreement with an applicant in relation to a small embedded generation facility, a mid-sized embedded generation facility or a large embedded generation facility. The connection cost agreement shall include the following:
- a. a requirement that the applicant pay a connection cost deposit equal to 100% of the total estimated allocated cost of connection at the time the connection cost agreement is executed;
 - b. if the applicant does not have an executed OPA contract which includes a requirement for security deposits or similar payments, a requirement that the applicant pay a capacity allocation deposit equal to \$20,000 per MW of capacity of the embedded generation facility at the time the connection cost agreement is executed;
 - c. if the applicant does not have an executed OPA contract which includes a requirement for additional security deposits or similar

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payments, a requirement that if fifteen (15) calendar months following the execution of the connection cost agreement the embedded generation facility is not connected to the distributor's distribution system, the applicant must pay an additional capacity allocation deposit equal to \$20,000 per MW of capacity of the embedded generation facility on the first day of the sixteenth (16th) calendar month following the execution of the connection cost agreement;

- d. if the applicant has an executed OPA contract which includes a requirement for security deposits or similar payments, the distributor shall not require the applicant to pay a capacity allocation deposit or an additional capacity allocation deposit;
- e. a requirement that the mutually agreed upon in-service date is no later than 5 years for water power projects or 3 years for all other types of projects from the initial date of application for connection or in accordance with the timelines in an executed OPA contract;
- f. a requirement that the applicant complete its engineering design and provide detailed electrical drawings to the distributor at least 6 months prior to the specified in-service date or as reasonably required by the distributor;
- g. any requirements relating to the applicant's acceptance of the distributor's offer to connect and the connection costs; and
- h. the timing of the connection.

The distributor's offer to connect shall be attached as an appendix to and form part of the cost connection agreement. Once the applicant has entered into a connection cost agreement with the distributor and has provided the distributor with detailed engineering drawings with respect to the proposal, the distributor shall conduct a design review to ensure that the detailed engineering plans are acceptable.

6.2.18A For any proponent that executed a connection cost agreement prior to the date of coming into force of this section, but is not yet connected to the distributor's distribution system, the distributor shall notify the proponent of that embedded generation facility, within 60 days of this section coming into force, that a connection cost deposit equal to 100% of the total allocated cost of connection and a capacity allocation deposit equal to \$20,000 per MW of capacity of the embedded generation facility must be paid within 60

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days of the distributor's notice as a condition of the applicant maintaining its current capacity allocation.

6.2.18B For any proponent that executed a connection cost agreement prior to the date of coming into force of this section, but is not yet connected to the distributor's distribution system and for which fifteen (15) calendar months or more have elapsed since the date on which the proponent executed a connection cost agreement, the distributor shall notify the proponent of that embedded generation facility, within 60 days of this section coming into force, that an additional capacity allocation deposit equal to \$20,000 per MW of capacity for the embedded generation facility must be paid within 60 days of the distributor's notice as a condition of the applicant maintaining its current capacity allocation. For clarity, this additional capacity allocation deposit is in addition to any deposit that may be required under section 6.2.18A.

6.2.18C For any proponent that was allocated capacity but that had not yet executed a connection cost agreement on or before the date of coming into force of this section for one or both of the following reasons:

- a. the connection impact assessment was completed within the last 12 months,
- b. an IESO System Impact Assessment ("SIA") is required and has not yet been completed,

the distributor shall notify the applicant within 60 days of the later of i) the project having been allocated capacity for a period of 12 months or ii) the SIA study being completed and its impact on the generation facility being identified, that as a condition of the applicant maintaining its current capacity allocation the applicant must execute a connection cost agreement with the distributor within 60 days of the distributor's notice.

6.2.18D Any connection cost deposit, capacity allocation deposit or additional capacity allocation deposit required to be obtained by the distributor pursuant to this Code shall be in the form of cash, letter of credit from a bank as defined in the Bank Act, or surety bond. The distributor shall allow the applicant to select the form of any required connection cost deposit, capacity allocation deposit and/or additional capacity allocation deposit.

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- 6.2.18E The connection cost deposit shall be used by the distributor to pay for costs allocated to the applicant and related to the connection of the embedded generation facility to the distribution system in accordance with the terms of the relevant connection cost agreement.
- 6.2.18F If, following the connection of an embedded generation facility to the distributor's distribution system the distributor determines that the amount of the connection cost deposit provided by the applicant exceeded the costs allocated to the applicant and related to connecting the generation facility to the distributor's distribution system, the distributor shall at the time of connection refund to the applicant the amount by which the connection cost deposit exceeded the costs related to connecting the embedded generation facility.
- 6.2.18G The distributor shall, no later than 30 calendar days after the applicant has its capacity allocation removed in accordance with subsection 6.2.4.1(e), refund to the applicant the amount of any remaining connection cost deposit provided by the applicant to the distributor pursuant to a connection cost agreement, provided that if the distributor has incurred costs associated with the connection of the applicant's embedded generation facility to the distributor's distribution system in accordance with the relevant connection cost agreement, the distributor shall subtract the amount of any such incurred costs from the total connection cost deposit amount provided by the applicant prior to remitting any refund to the applicant.
- 6.2.18H The distributor shall refund to the applicant the amount of any capacity allocation deposit or additional capacity allocation deposit provided by the applicant to the distributor no later than 30 calendar days after the applicant connects to the distributor's distribution system.
- 6.2.18I Where any connection cost deposit, capacity allocation deposit or additional capacity allocation deposit is provided by an applicant to a distributor in the form of cash and where the distributor refunds all or any portion of such connection cost deposit, capacity allocation deposit or additional capacity allocation deposit to the applicant in accordance with this Code, the return of such deposit or deposits shall be in accordance with the following conditions:
- a. interest shall accrue monthly on the deposit amounts commencing on the receipt of the deposit required by the distributor; and

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- b. the interest rate shall be at the Prime Business Rate set by the Bank of Canada less 2 percent.

- 6.2.19 The distributor shall have the right to witness the commissioning and testing of the connection of the generation facility to the distributor's distribution system.

- 6.2.20 Once the applicant informs the distributor that it has received all necessary approvals, provides the distributor with a copy of the authorization to connect from the ESA and enters into the Connection Agreement, the distributor shall act promptly to connect the generation facility to its distribution system.

- 6.2.21 Subject to any delays in commissioning and testing of the generation facility which are beyond the control of the distributor, a distributor shall connect a proposed small embedded generation facility within:
 - a. 60 days of the applicant taking the steps set out in section 6.2.20, where no distribution system reinforcement or expansion is required; and
 - b. 180 days of the applicant taking the steps set out in section 6.2.20, where a distribution system reinforcement or expansion is required.

- 6.2.22 A Connection Agreement for a small, mid-sized or large embedded generation facility shall be in the form set out in Appendix E where a standard form of contract is set out in Appendix E for that size of embedded generation facility.

- 6.2.23 Material on the process for connecting a generation facility to a distribution system is set out in Appendix F.1. This material is for information purposes only and the provisions of the Code govern in the case of any conflict.

- 6.2.24 A distributor may by written agreement with an applicant who is proposing to connect a small, mid-sized or large embedded generation facility provide that the process for connecting the generation facility to be followed is the process set out for a smaller category of embedded generation facility, including a micro-embedded generation facility.

- 6.2.25a A distributor shall require a generator that proposes to increase the output of an embedded generation facility that is then in service to submit a new application to connect, and the provisions of sections 6.2.9 to 6.2.24 shall apply.

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Technical Requirements

- 6.2.25 A distributor shall ensure that the safety, reliability and efficiency of the distribution system is not materially adversely affected by the connection of a generation facility to the distribution system. A distributor shall require that new or significantly modified generation facilities meet the technical requirements specified in Appendix F.2.
- 6.2.26 A distributor shall ensure that the distribution system is adequately protected from potential damage or increased operating costs resulting from the connection of a generation facility. Despite section 2.2.1, if damage to the distribution system or increased operating costs result from the connection of a generation facility other than a micro-embedded generation facility, the distributor shall be reimbursed for these costs by the generator.
- 6.2.27 A distributor shall require that a generator with a generation facility connected to the distributor's distribution system has a regular, scheduled maintenance plan to ensure that the generator's connection devices, protection systems and control systems are maintained in good working order. This requirement will be provided for in the connection agreement.
- 6.2.28 All equipment that is connected, operating or procured or ordered before May 1, 2002 is deemed to be in compliance with the technical requirements of this code.
- 6.2.29 A distributor may require that equipment deemed compliant under section 6.2.28 be brought into actual compliance with the technical requirements of this code within a specific reasonable time period where there is:
- a. a material deterioration of the reliability of the distribution system resulting from the performance of the generator's equipment;
 - b. a material negative impact on the quality of power of an existing or a new customer resulting from the performance of the generator's equipment;
- or
- c. a material increase in generator capacity at the site where the equipment deemed compliant is located.

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6.2.30 The distributor may act in accordance with section 6.2.29, once the distributor has developed rules and procedures for requiring equipment to be brought into actual compliance and these rules and procedures have been provided to the generator.

6.3 Responsibilities to Other Distributors

6.3.1 A distributor shall make every reasonable effort to respond promptly to another distributor's request for connection. A distributor shall provide an initial consultation with another distributor regarding the connection process within thirty (30) days of receiving a written request for connection. A final offer to connect the distributor to the host distributor's distribution system shall be made within ninety (90) days of receiving the written request for connection, unless other necessary information outside the distributor's control is required before the offer can be made.

6.3.2 A distributor shall make a good faith effort to enter into a Connection Agreement with a distributor connected to the distributor's distribution system. The contents and format of the Connection Agreement are in the discretion of the distributors that participate in the Connection Agreement but must conform to the requirements of this Code. Appendix G provides an example of the process that distributors should follow in providing a connection to another distributor.

6.3.3 The reliability of supply and the voltage level at the delivery point from a host distributor's distribution system to an embedded distributor's distribution system shall be as good as or better than what is provided to the host distributor's other distribution customers.

6.3.4 A distributor shall not build any part of its distribution system in another distributor's licensed service area except under the following conditions:

- The part of the distribution system that is to be located inside another licensed service area is dedicated to the delivery of electricity to the distributor who owns the distribution facilities; and
- There is no apparent opportunity for both distributors to share the distribution facilities; and
- The distributor in whose service area the distribution facilities are to be located determines that the presence of the distribution facilities in that location does not impinge on its distribution operations.

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- 6.3.5 A distributor that owns equipment in another distributor's licensed service area shall allow that distributor access to the equipment for the following reasons:
- Emergencies.
 - When the equipment may cause a violation of a licence condition by the distributor who is licensed for the service area.
 - Upon a reasonable request by the distributor who is licensed for the service area.
 - In accordance with any arrangement between the two distributors.

6.4 Sharing Arrangements Between Distributors

- 6.4.1 A distributor that owns distribution facilities in another distributor's licensed service area, and decides to share those distribution facilities with the distributor licensed to serve the service area, shall have an agreement that describes the terms of the sharing arrangement with the other distributor.
- 6.4.2 An operating agreement for multiple ownership circuits shall include, among other conditions, clauses that require that:
- Each section owner provide downstream owners with fault current information and protection settings of upstream protective devices.
 - Each section owner provide upstream owners with load forecasting information.
 - Each section owner maintain phase balance within generally acceptable industry standards.
 - Each section owner ensure generally acceptable industry standards pertaining to power quality and voltage levels are adhered to on the section owner's portion of the feeder.
 - The owner of the feeder breaker be responsible for maintaining appropriate relay settings for overall feeder protection.
 - Each distributor be responsible to provide the required information to accomplish appropriate relay settings for overall feeder protection, including information on feeder characteristics and loading information.
- 6.4.3 In existing or new multiple ownership circuits, a distributor shall be responsible for maintenance, protection and power quality of the distributor's own portion of the shared feeder. The distributor shall ensure that its portion of the feeder has

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proper fault protection and voltage within proper limits. This generally would require the owner of each section of the feeder to provide for suitable overcurrent protection devices and voltage regulators, as appropriate, at the upstream boundary and suitable metering, if not already available for settlement purposes, at the downstream boundary.

6.5 Load Transfers

6.5.1 A distributor (referred to in this section as the geographic distributor) that provides distribution services through a load transfer may continue to do so under the following conditions:

- The load transfer customer enters into a Connection Agreement or is deemed to have an implied contract with the geographic distributor and interacts only with the geographic distributor.
- The geographic distributor provides service to the load transfer customer in accordance with its Conditions of Service and bills the load transfer customer in accordance with its regulated charges and rates.
- The geographic distributor is responsible for system reliability or equipment failures associated with the distribution system equipment it owns or operates that is used to deliver electricity to the load transfer customer.
- The geographic distributor allows the distributor that owns the connection assets (referred to as the physical distributor) access to the distribution equipment used to service the load transfer customer, as required for system reliability and safety.
- The geographic distributor is responsible to the physical distributor for all charges and costs incurred by the load transfer customer for all costs defined in Retail Settlement Code, including distribution costs, competitive electricity costs and non-competitive electricity costs provided to the customer through the physical distributor's distribution system.
- The geographic distributor is responsible for facilitating the load transfer customer's access to retail competition and shall interact with any competitive retailer chosen by the customer.

6.5.2 A physical distributor that provides distribution services through a load transfer may continue to do so under the following conditions:

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- The physical distributor refers the load transfer customer or a retailer that intends to service the load transfer customer to the geographic distributor for all issues. The geographic distributor is responsible to work with the physical distributor on any issues that are the direct responsibility of the physical distributor.
- The physical distributor is responsible for system reliability or equipment failures associated with the distribution system equipment it owns or operates that is used to deliver electricity to the load transfer customer.
- The physical distributor allows the geographic distributor access to its equipment, as required for system reliability and safety.

6.5.3 During the period between May 1, 2002 and June 30, 2014, a physical distributor shall be obligated to continue to service an existing load transfer customer unless otherwise negotiated between the physical distributor and geographic distributor.

6.5.4 During the period between May 1, 2002 and June 30, 2014, a geographic distributor that services a load transfer customer shall either:

- a. negotiate with a physical distributor that provides load transfer services so that the physical distributor will be responsible for providing distribution services to the customer directly, including application for changes to the licensed service areas of each distributor; or
- b. expand the geographic distributor's distribution system to connect the load transfer customer and service that customer directly.

Once a load transfer customer enters into a Connection Agreement or implied contract with the physical distributor, the physical distributor shall have sole responsibility for that customer.

6.5.4.1 A geographic distributor shall file with the Board, by November 30, 2010, an updated implementation plan for eliminating its existing load transfer arrangements. The updated implementation plan shall:

- a. summarize the geographic distributor's existing load transfer arrangements;
- b. set out the geographic distributor's proposed method for eliminating each load transfer arrangement; and
- c. set out the geographic distributor's proposed timeline for eliminating each load transfer arrangement.

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6.5.4.2 A geographic distributor shall file an annual status report with the Board by November 30 of each year, starting in 2011 and ending in 2013, that summarizes the geographic distributor's progress in relation to its updated implementation plan. The annual status report shall also include a summary of the geographic distributor's load transfer arrangements that have been eliminated within the year, the method of elimination, and the date they were eliminated.

6.5.5 A distributor may enter into a new load transfer agreement with another distributor with leave of the Board.

6.6 Provision of Information

6.6.1 A distributor shall communicate general market and educational information to consumers connected to its distribution system as required by the Board.

6.6.2 A distributor shall inform a person about the person's obligations to the distributor, and shall monitor and require compliance to ensure that the person is meeting its obligations. A distributor shall inform the consumer or customer about the distributor's rights to disconnect service.

6.6.3 At the request of a consumer, a distributor shall provide a list of retailers who have Service Agreements in effect with the distributor. The list shall conform to the requirements of section 2.5 of the Affiliate Relationships Code. The list should inform the consumer that an alternative retailer does not have to be chosen in order to ensure that the consumer receives electricity and the terms of service that are available under Standard Supply Service.

6.6.4 A distributor shall not provide information on products retailed by a retailer.

6.6.5 Upon receiving an inquiry from a consumer connected to its distribution system, the distributor shall either respond to the inquiry if it deals with the distributor's distribution services or provide the consumer with contact information for the entity responsible for the item of inquiry, in accordance with chapter 7 of the Retail Settlement Code.

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6.6.6 An embedded distributor that receives electricity from a host distributor shall provide load forecasts or any other information related to the embedded distributor's system load to the host distributor, as determined and required by the host distributor. A distributor shall not require any information from another distributor unless it is required for the safe and reliable operation of either distributor's distribution system or to meet a distributor's licence obligations.

6.7 Net Metered Generators

6.7.1 In this section 6.7:

- "eligible generator" in respect of a distributor means a customer of a distributor that meets the criteria set out in section 7(1) of the Net Metering Regulation;
- "net metered generator" means an eligible generator to whom net metering has been made available by a distributor; and
- "Net Metering Regulation" means the Net Metering Regulation, O. Reg. 541/05.

6.7.2 A distributor shall, upon request, make net metering available to eligible generators in its licensed service area in accordance with the Net Metering Regulation, on a first-come first-served basis, unless the cumulative generation capacity from net metered generators in its licensed service area equals one percent of the distributor's annual maximum peak load for the distributor's licensed service area, averaged over three years, as determined by the Board from time to time.

6.7.3 A distributor shall bill a net metered generator on a net metering basis in accordance with the Net Metering Regulation provided that the net metered generator meets the requirements of section 2(2) of the Net Metering Regulation.

6.7.4 A distributor may, upon request, make net metering available to additional eligible generators in its licensed service area and may bill them on a net metering basis when the cumulative maximum generation capacity from net metered generators in its licensed service area exceeds one percent of the distributor's annual maximum peak load for the distributor's licensed service area, averaged over three years, as referred to in section 6.7.2.

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- 6.7.5 A distributor shall, in the manner and time specified by the Board, file with the Board the total rated maximum output capacity of generation facilities in its licensed service area to which net metering has been made available as of:

February 10, 2006; and such later dates as are determined by the Board.

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7 SERVICE QUALITY REQUIREMENTS

7.1 Definitions

In this section 7, the following words have the meanings set out below.

“answered” means connected to a person that is a representative of the distributor. Connection to a voice mailbox or an answering machine, or placing a person in a queue, does not constitute answering.

“customer care telephone number” means any telephone number that is dedicated exclusively to, and given to the public by the distributor for, the purpose of contacting the distributor on matters concerning customer care, including customer account enquiries and other customer service enquiries. Where a distributor does not have a telephone number dedicated exclusively to matters concerning customer care, any telephone number given to the public for the purpose of making enquiries of the distributor shall be deemed to be a “customer care telephone number”.

“emergency call” means a call where the assistance of the distributor has been requested by fire, ambulance or police services.

“qualified enquiry” means an enquiry received by a distributor from a customer or representative of a customer pertaining to the customer’s existing or prospective service in which a written response is requested by the customer or representative of the customer or determined by the distributor to be necessary. A “qualified enquiry” does not include any of the following, which shall be addressed in accordance with other applicable requirements: cable locate requests; retailer Service Transaction Requests; and enquiries of a general nature not relating specifically to service currently provided to a customer or to a new service being requested by a customer.

“qualified incoming calls” means calls that are received during the regular hours of operation of a distributor’s customer call centre and are either:

- (a) telephone calls for which the customer normally reaches a customer service representative directly or has been transferred to a customer care line by a general operator; or
- (b) telephone calls in which the customer has reached the distributor’s Interactive Voice Response (“IVR”) system and selected the option of speaking to a customer service representative.

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The following are not “qualified incoming calls”:

- (a) telephone calls that are abandoned by the customer prior to asking for a customer service representative; and
- (b) telephone calls for which the customer elects IVR self-service.

“new service” means a connection that requires an Electric Safety Authority certificate before the connection can be completed. This includes, but is not limited to, connections associated with a service upgrade and connections that involve the installation of an additional meter on the distribution system where no meter previously existed. Solely replacing an existing meter is not a new service.

"service conditions" means any condition that must be satisfied before the service will be provided and may include the payment of connection fees, the signing of an offer to connect, the completion of a distribution system expansion, the delivery of any necessary equipment and the receipt of an electrical safety inspection certificate.

7.2 Connection of New Services

7.2.1 A connection for a new service request for a low voltage (<750 volts) service must be completed within 5 business days from the day on which all applicable service conditions are satisfied, or at such later date as agreed to by the customer and distributor.

7.2.2 A connection for a new service request for a high voltage (>750 volts) service must be completed within 10 business days from the day on which all applicable service conditions are satisfied, or at such later date as agreed to by the customer and distributor.

7.2.3 This service quality requirement must be met at least 90 percent of the time on a yearly basis.

7.3 Appointment Scheduling

7.3.1 When a customer or a representative of a customer requests an appointment with a distributor, the distributor shall schedule the appointment to take place within 5 business days of the day on which all applicable service conditions are satisfied or on such later date as may be agreed upon by the customer and distributor.

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- 7.3.2 Where the appointment in section 7.3.1 requires the presence of the customer or the customer's representative, the distributor shall fulfil the requirements set out in section 7.4.1.
- 7.3.3 Where the appointment in section 7.3.1 does not require the presence of the customer or the customer's representative, the distributor shall arrive for the appointment on the day scheduled under section 7.3.1.
- 7.3.4 This service quality requirement must be met at least 90 percent of the time on a yearly basis.
- 7.3.5 All of the actions set out in:
- (a) section 7.3.1; and
 - (b) section 7.3.2 or section 7.3.3, as applicable,
- must be completed in order to fulfil this service quality requirement.
- 7.3.6 This service quality requirement applies regardless of whether or not the presence of the customer or the customer's representative is required.
- 7.3.7 This service quality requirement does not apply to appointments that are subject to the requirements in sections 7.2.1 and 7.2.2.

7.4 Appointments Met

- 7.4.1 When an appointment is either:
- (a) requested by a customer or a representative of a customer with a distributor ; or
 - (b) required by a distributor with a customer or representative of a customer,
- the distributor must offer to schedule the appointment during the distributor's regular hours of operation within a window of time that is no greater than 4 hours (i.e., morning, afternoon or, if available, evening). The distributor must then arrive for the appointment within the scheduled timeframe.
- 7.4.2 This service quality requirement must be met at least 90 percent of the time on a yearly basis.

Distribution System Code

- 7.4.3 Both of the actions set out in section 7.4.1 must be completed in order to fulfil this service quality requirement.
- 7.4.4 If the distributor arrives at the scheduled appointment within the required time period but the appointment cannot be met because the customer failed to attend the appointment, the distributor may consider the appointment to have been met for the purpose of determining its performance with the standard.
- 7.4.5 This service quality requirement applies to appointments that:
- (a) require the presence of the customer or the customer's representative;
 - (b) are scheduled to occur at the distributor's office, the customer's premises, business or work site, or at another location agreed to by the distributor and customer; and
 - (c) are a frequently recurring part of the distributor's normal course of business, including, but not limited to, the following:
 - (i) disconnecting and/or reconnecting service to effect maintenance or upgrades;
 - (ii) connecting a new customer;
 - (iii) connecting a new service for an existing customer;
 - (iv) providing underground cable locates;
 - (v) inspections;
 - (vi) gaining access to read or replace an inside meter or to provide the customer with instructions on the proper use of a prepaid meter or similar device; and
 - (vii) appointments that are rescheduled as required by section 7.5.1.

7.5 Rescheduling a Missed Appointment

- 7.5.1 When an appointment to which sections 7.3.1, 7.3.3, or 7.4.1 apply is missed or is going to be missed, the distributor must:
- (a) attempt to contact the customer before the scheduled appointment to inform the customer that the appointment will be missed; and
 - (b) attempt to contact the customer within one business day to reschedule the appointment.

Distribution System Code

- 7.5.2 This service quality requirement must be met 100 percent of the time on a yearly basis.
- 7.5.3 Both of the actions set out in section 7.5.1 must be completed in order to fulfil this service quality requirement.
- 7.5.4 This requirement does not apply if the appointment is missed due to the failure of the customer or the representative of the customer to attend the appointment.
- 7.5.5 The rescheduled appointment becomes a new appointment for the purposes of sections 7.3.1 or 7.4.1 as appropriate.

7.6 Telephone Accessibility

- 7.6.1 Qualified incoming calls to the distributor's customer care telephone number must be answered within the 30 second time period established under section 7.6.3.
- 7.6.2 This service quality requirement must be met at least 65 percent of the time on a yearly basis.
- 7.6.3 For qualified incoming calls that are transferred from the distributor's IVR system, the 30 seconds shall be counted from the time the customer selects to speak to a customer service representative. In all other cases, the 30 seconds shall be counted from the first ring.

7.7 Telephone Call Abandon Rate

- 7.7.1 The number of qualified incoming calls to a distributor's customer care telephone number that are abandoned before they are answered shall be 10 percent or less on a yearly basis.
- 7.7.2 For the purposes of section 7.7.1, a qualified incoming call will only be considered abandoned if the call is abandoned after the 30 second period established under section 7.6.1 has elapsed.

7.8 Written Response to Enquires

- 7.8.1 A written response to a qualified enquiry shall be sent by the distributor within 10 business days.

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- 7.8.2 This service quality requirement must be met at least 80 percent of the time on a yearly basis.
- 7.8.3 The 10 business days shall be counted from the date on which any conditions associated with the enquiry have been satisfied (such as the date of a move where there is a request for a final statement of account) or, if there are no such conditions, from the date of receipt of the enquiry.
- 7.8.4 A distributor may consider a written response to have been sent if the distributor sends a written acknowledgement of receipt of the qualified enquiry and includes a specific date in which a complete response to the qualified enquiry will be provided.
- 7.8.5 A written response shall be deemed to have been sent on the date on which it is faxed, mailed or e-mailed by the distributor.

7.9 Emergency Response

- 7.9.1 Emergency calls must be responded to within 120 minutes in rural areas and within 60 minutes in urban areas.
- 7.9.2 This service quality requirement must be met at least 80 percent of the time on a yearly basis.
- 7.9.3 The definition of “rural” and “urban” should correspond to the municipality’s definition.
- 7.9.4 The arrival of a qualified service person on site will constitute a response.