HydroOttawa		TITLE: Electrical Customer Specification	
RECOMMENDED:	**A. Diotte/P. Lemay**	NO: **ECS0023**	REV: **6**
APPROVED:	**M. Wyndham**		
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UNMETERED SERVICE CONDITIONS, CONNECTIONS & UPGRADES

REVISION SHEET

Revision	Description	Date	Initial
0	Original document	2009-09-08	ra/csm
1	Section 4.1.1, 6.2 and Schedule A updated	2010-01-13	ra/lv/csm
2	Section 4.3.1 – random sampling rate Section 6.3 – extra work	2010-03-26	ra/csm
3	Section 4.3.1 – required data	2011-09-28	ra/csm
4	Section 3 – MCCL power factor adjusted Section 4.3.1 – added ANSI cert lab Section 4.3.1 – demand over the service life Schedule C - added	2012-03-02	ra/csm
5	General Update	2014-11-25	smc/csm
6	General Update	2022-05-10	ad/pl/mw

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1. Introduction

Unmetered customer loads are intended for use within the road right-of-way and are permitted at the discretion of Hydro Ottawa Limited (HOL). This type of service offering is specifically made available to companies that are in good standing with HOL and licensed for equipment access with the road authority, such as government agencies, community associations, and temporary event organizations.

HOL has the fiduciary responsibility to all customers to ensure that good processes are established and followed. Subsequently, for a customer to take advantage of the lower tariffs, consolidated billing, and less complex supply point equipment associated with an unmetered service, there are reciprocal obligations and responsibilities that must be met by both HOL and the unmetered service customer.

This document supports HOL Conditions of Services ECS0012 by describing the practices to be followed by HOL staff and all unmetered single phase secondary service customers within HOL's service territory.

2. References

Hydro Ottawa – DFS0009 – Civic Addressing Standard
Hydro Ottawa – ECG0002 – Technical Guideline for Customer Owned Standby Generation
Hydro Ottawa – ECG0004 – Unmetered Secondary Ownership Demarcation
Hydro Ottawa – ECG0008 – Distribution System Voltage and Power Quality
Hydro Ottawa – ECS0012 – Hydro Ottawa Conditions of Services
Hydro Ottawa – ECS0025 – Unmetered Outage Protocol
Hydro Ottawa – ECS0034 – Electrical Profiling of Unmetered Loads
Hydro Ottawa – ECS0035 – Protocol for Self-Reporting Consumption of Unmetered Loads
CSA-Z234.5 Data Elements & Interchange Formats – Information Interchange – Representation of Date and Times
Measurement Canada – S-E-01 – Specifications for the Calibration, Certification and Use of Electricity Calibration Consoles
Measurement Canada – S-E-02 – Specifications for the Verification and Reverification of Electricity Meters
Ontario Energy Board - Distribution Rate Handbook
Ontario Energy Board - Distribution System Code
US Department of Defense – MIL-STD-105E – Sampling Procedures and Tables for Inspection by Attributes

It should be noted that the US Department of Defense has since deprecated MIL-STD-105E in favour of a different approach. Despite this, all of the methodology, mathematics, and assumptions that comprise MIL-STD-105E remains valid and continues to be useful to this document.

3. Definitions & Abbreviations

Acceptable Variance refers to the tolerable difference between the billed USL unadjusted consumption to the actual unadjusted consumption. This is based on two references – the "Loss Factor," and Measurement Canada's permitted tolerance for electricity revenue meters (+/- 1%) - the Acceptable Variance for USL only shall be the higher of the two references, however, shall never be more than 3.44 times (the present System Loss Factor) the Measurement Canada limits. HOL calibrates its meters to 0.2% tolerance.

CC&B means HOL's Customer Care and Billing System used for billing energy accounts

Demarcation Point – refer to HOL document ECS0012, Section 3.7 – Unmetered Services and ECG0004.

Electrical Load Power Factor means the Weighted Average power factor of lab tested sampled device over the device expected Operating Life. The testing shall have considered average device loading (i.e., service factor or use) over the Operating Life of the device.

Enhancement – refer to HOL document ECS0012, Section 4 - Glossary of Terms.

Expansion – refer to HOL document ECS0012, Section 4 - Glossary of Terms.

HOL means Hydro Ottawa Limited

Maximum Continuous Calculate Load means the calculated consumption of a device based on that device operating without interruption at any time. Thus, the calculation is based on the billable load multiplied by 24 hours-per-day multiplied by 365 days in a typical year. The device Electrical Load Power Factor and the service entrance disconnect switch rating are both considered in determining the billable load.

> Determination of the billable load is based on the largest demand from the following three separate calculations:
>
> (1) 100% of the device nameplate wattage (W),
>
> (2) 90% of the device volt-ampere (VA) rating per the Electrical Load Power Factor (Note: this is not simply the multiplication of the nameplate voltage and ampere rating),
>
> OR
>
> (3) 80% of the service entrance disconnect switch rating ampere (A) rating multiplied by the nominal Supply Point voltage (V). Use of a reduced rated fuse or breaker is not considered.
>
> Load or consumption offset by generation is not considered.

OEB means the Ontario Energy Board.

OESC means the Ontario Electrical Safety Code.

Operating Life means the expected device population average survival in-service period before end-of-life. The survival may be longer than the mean time before failure (MTBF), and it can be longer than the economic end-of-life or obsolescence date.

Safe Limits of Approach mean the “Safe Limits of Approach” as defined by E&USA.

Supply Point – refer to HOL document ECS0012, Section 4 - Glossary of Terms.

Unmetered Loads – refer to HOL document ECS0012, Section 4 - Glossary of Terms.

Weighted Average refers to the mean of results from a sampling of items whereby extra consideration is given to one or more measured parameters of the sample results (as set out in section 4.3.1).

4. General Conditions for Unmetered Loads

Acceptance of an unmetered load by HOL, subjects HOL and the unmetered service customer to uphold the conditions and respective responsibilities contained within this document.

Also proposal to attach the customer unmetered load to a HOL asset (such as a HOL pole or pad-mounted equipment) shall require an additional customer specific attachment agreement. This agreement may include requests for additional data and/or may be subject to specific conditions.

4.1 General Responsibilities

4.1.1 Unmetered Customer Responsibilities

Unmetered customers shall comply with the requirements of HOL standards and the Ontario Electrical Safety Code to ensure public safety.

Unmetered customers shall complete and sign the declaration in Schedule 2 and submit to HOL's Unmetered Scattered Loads (USL) representative in a timely manner by January 31 of each year.

Unmetered customers shall operate their unmetered load within the requirements of HOL technical specification ECG0008.

Unmetered customers shall retain all information provided to and by HOL per the terms in Section 4.3; HOL may not retain record details with each unmetered service and thus will not be held responsible for any incomplete records.

Unmetered customers shall install, operate, and maintain its secondary conductor from the HOL designated Supply Point to the intended load. Relocation of the secondary conductors of an unmetered service to another designated Supply Point at HOL's request shall be at the customer's cost.

Unmetered customers shall provide timely and accurate data (refer to Section 4.3 & Schedule 1).

Accepted energy consumption shall be based on one of the following:

- The maximum continuous calculated load, or
- The results of a HOL accepted audit (refer to Section 4.3), or
- A written agreement between the customer and HOL as per HOL document ECS0035, if authorized by the relevant regulator.

Unmetered customers shall not allow an external party to connect to its unmetered service and its unmetered secondary bus. For different internal corporate groups sharing the same unmetered bus, a three-party agreement as per Schedule 3 shall be executed with HOL to define operating, maintenance, and cost responsibilities with those groups.

Work performed on a customer's unmetered load located within the Safe Limits of Approach shall be conducted in accordance with the attachment agreement between the customer and HOL.

The customer shall be responsible to correct safety hazards with his unmetered service when reported by HOL, ESA and/or others..

If the customer undertakes work on their unmetered load requiring an ESA Connection Authorization Certificate, the customer shall upgrade the service to meet HOL current standards and/or directions as applicable.

Unmetered services are not intended for a customer to generate back into HOL's distribution system. If an unmetered customer requests to connect generation facilities, the Connection shall meet HOL's technical guideline for Customer Owned Standby Generation ECG0002 and shall be upgraded to a metered service.

4.1.2 HOL Responsibilities:

HOL will provide a service layout for each unmetered service location that identifies the Supply Point and prescribes any applicable HOL standards and conditions.

HOL will strive to make new unmetered service connections within ten (10) working days of having all HOL Connection conditions met. (Note: OEB Service Quality Indicators only apply to metered services but have been extended to unmetered services by HOL).

HOL will provide reasonable notice to the unmetered service customer should the Supply Point require relocation:

- Planned Supply Point relocations – 90 day written notice.
- Emergency Supply Point relocations – when possible.

To connect to a HOL energized cable chamber (e.g. pad-mounted transformer, cable-chamber, hand-hole, etc.), HOL and its approved contractor shall core-drill its chamber at the cost of the unmetered customer.

HOL will assign the USL energy account for new Connection load. There should be only one USL energy account per energy jurisdiction.

HOL will ensure that unmetered service billing information accurately reflects calculated electrical consumption by unit, quantity, load profile and demand. Devices of the same class by type or load will be grouped together where possible and assigned the same billing determinants.

HOL will provide only one unmetered point of supply within 50m if the customer's unmetered load is not directly attached to a pole that has HOL's secondary bus. Further, the unmetered load shall be located within easy and obvious sight of the point of supply.

4.2 Data Requirements

4.2.1 New Unmetered Services

New unmetered services shall meet with the data quality requirements described in Section 4.3.1 of this document.

Unmetered service customers shall provide HOL with the necessary information to complete each initial unmetered service layout per Schedule 1, for the proposed installation.

4.2.2 Existing Unmetered Services

Unmetered service customers are required to update HOL with changes to unmetered loads when it becomes known by the customer or when requested by HOL.

The data, the timing, and method of submission are outlined in Schedule 1. An annual declaration by the customer as per Schedule 2 confirming data accuracy shall be made.

4.3 Data Quality & Auditing Requirements, and Records Retention

In the event that HOL or the unmetered customer identify or cause a billing error, HOL will rectify the matter consistent with this section and Section 6.6. The customer shall meet the following data requirements.

4.3.1 Data Quality Requirements

The customer shall provide GPS coordinates in degrees:minutes:seconds (i.e., 45:26:45.25, -75:20:88.1) or decimal format (45.354153,-75.9845542). The measurement shall comply with North American Datum 1983 (NAD83), Modified Transverse Mercator, Zone 9, three-degrees and have accuracy within +/- 2.0m radius of the actual unmetered device location.

Any data that describes a specific date or time shall be reported according to CSA document CSA-Z234.5, as follows:

Date: YYYY/MM/DD **Time:** HH:NN:SS or HH:NN

Any data denoting a civic address shall be reported according to DFS0009 Civic and Mailing Address Format General Standard.

Electrical profile, power quality, and usage accuracy studies are required when new unmetered equipment is introduced or when requested by HOL. The unmetered customer has the following two options available to develop and prove this information to HOL:

1) A test plan that meets the requirements of HOL Electrical Profiling document ECS0034; or
2) A signed and sealed certified test report from a Standards Council of Canada or ANSI compliant laboratory having competencies in electrical equipment testing.

In either case, the test plan and report shall outline how the probability sampling ensures a maximum defect rate of 3.4% with a 95% confidence level for each load type by using a similar energy usage profile for the proposed installation. Generally, stratified sampling may be needed to ensure conformance. To ensure adequate sampling requirements are met, the sampling tables from MIL-STD-105E shall be referenced.

The unmetered electrical equipment shall meet or exceed HOL document ECG0008 Distribution System Voltage and Power Quality requirements; specifically the weighted averages for:
electrical harmonic generation; and
electrical Load Power Factor.

The unmetered electrical equipment energy usage shall be provided; specifically the Weighted Averages for:

- electrical load demand over its expected operating life; and
- control characteristics affecting electrical load demand (e.g. photo-controller, thermostat, timers, etc.).

Where data errors are identified, the applicable costs described in Section 6.6 shall apply.

4.3.2 Data Auditing Requirements

The unmetered customer, at their cost, shall undertake an audit to verify the equipment make/model, type, load-profile, and location of their unmetered equipment no less than every 5 years or earlier at the request of HOL. A copy of the formal report shall be communicated to HOL when completed.

If less than all of the customer's loads are audited, the audit shall be carried out according to Military Standard MIL-STD-105E with the intent to ensure a statistically significant sample was examined.
The results of the audit shall be compiled in a formal report carrying the stamp of a Professional Engineer attesting to the completeness and accuracy of the audit's results.

The collected characteristics of the unmetered loads shall be reported in a tabular format and readable using commonly available software (such as Microsoft Excel). It shall also include an English description (including units of measure as appropriate) that makes obvious the data stored in each field and/or column. Data collected on each device shall include, but not limited to the following:

- Device description
- Device model and manufacturer
- Nameplate voltage (in V), current (in A), and load (in W or kW)
- Name of public roadway closest to the unmetered load
- Geographic location of unmetered load (longitude / latitude or northing / easting)
- Geographic location of unmetered load's supply point (longitude / latitude or northing / easting)
- Civic Address of unmetered load (if applicable)

4.3.3 Records Retention

The customer shall retain information provided to and by HOL for a minimum period of seven years while the service is in a state other than permanently removed. Once the service has been permanently removed, the retention period shall be a minimum of two years.

The retained information shall include yet, not be limited to, the detail in Schedule 1, Schedule 2, and any other relevant correspondence or agreements regarding the unmetered account including the associated service connections and load.

Failure to retain such records shall result in costs for HOL to research and reconstruct missing information plus the costs described in Section 6.5, and 6.6.

5. Unmetered Load Types Defined

There are six load types described below that may qualify for unmetered single phase secondary servicing. The method and location of Supply Point may vary for each application and shall be established through consultation with HOL.

5.1 Road Authority Loads

5.1.1 Street Lighting

Street lighting on public roads may qualify for unmetered servicing.

- Single-phase, three-wire, 120V/240V.
- Only loads owned and operated by a public road authority less than or equal to 100A may be unmetered.

5.1.2 Traffic Signals

Traffic lights and crosswalks on public roads may qualify for unmetered servicing.

- Single-phase, three-wire, 120V/240V.
- Only loads owned and operated by a public road authority less than or equal to 100A may be unmetered.

5.1.3 Intersection Cameras

Speed and Red Light Cameras on public roads may qualify for unmetered servicing.

- Single-phase, three-wire, 120V/240V.
- Only loads owned and operated by a public road authority less than or equal to 100A may be unmetered.

5.2 Other Loads

5.2.1 Bus Shelters

Bus shelters on public roads may qualify for unmetered servicing.

- Single-phase, two-wire, 120V.
- Only Bus shelter loads less than or equal to 15A may be unmetered.

5.2.2 Parks & Pathway Lighting

Publicly owned park and/or pathway lighting may qualify for unmetered servicing.

- Single-phase, two-wire, 120V.
- Only publicly owned park and/or pathway lighting loads less than or equal to 15A may be unmetered.

5.2.3 Decorative Lighting

Privately owned occasional festive or decorative streetscape lighting on public roads may qualify for unmetered servicing.

- Single-phase, two-wire, 120V.
- Only privately owned occasional festive or decorative streetscape lighting loads less than or equal to 15A may be unmetered.
- Pole attachment agreement is required if the decorative lighting is to be mounted on HOL owned poles.
- Temporary municipal encroachment permits required for road access and assigned responsibilities.

5.2.4 Small Services

Telephone booths, small power supplies and communication amplifiers & antennas, road & utility cathodic protection, railway signals, flasher beacons, and similar small customer loads within the public road right-of-way may qualify for unmetered servicing.

- Single-phase, two-wire, 120V
- Only small service loads less than or equal to 15A may be unmetered.

6. Service Costs

6.1 General Billing Conditions

There are three life-cycle states of an unmetered service which are: proposed, in-service, or permanently removed. In each case, the minimum billing period remains one month regardless of when the unmetered service lifecycle state changes. Also, billing of the energy and fixed charges continues monthly in all states until the service has been permanently removed.

6.1.1 Proposed

On request of a new connection, the customer's proposal will initiate the service point as proposed for a period of up to 90-days.

6.1.2 In-Service

An unmetered service is deemed to be in-service when it has been energized or it has been electrically isolated (removed from any electrical energy source) at any time between being energized or permanently removed. The two in-service states are described as follows:

a) Energized

   An existing unmetered service that has been physically connected to the HOL distribution system.
   .

b) Electrically Isolated

   An existing unmetered service that has been physically disconnected from the HOL distribution system at its point of supply. Isolation of an unmetered service may be initiated by HOL for power quality, outage problems, or data issues (see Section 6.6), or by the customer through written request.

   In this state, HOL continues to calculate the bill (energy and fixed charges) on a per month basis for no more than six consecutive months. Following the sixth month of being electrically isolated, the unmetered service must either be put back in-service or be permanently removed from service. HOL retains the right to disconnect the service per terms defined in the HOL Conditions of Service ECS0012.

6.1.3 Permanently Removed

An unmetered service is deemed permanently removed following the sixth consecutive month in the electrically isolated state, or where the customer requests that the unmetered service be terminated and/or permanently cancelled. HOL will proceed to terminate the service and make the service reconnection impossible such as removing and/or cutting the service conductor to suit.

Where an unmetered load has been deemed permanently removed, billing charges (energy and fixed charges) cease to accrue in the following month to the consolidated unmetered service bill.

Re-energization of a "permanently removed" unmetered service shall be treated as a new unmetered service and be subject to the requirements contained within this document.

6.2 Ongoing Account Tariffs and Charges

The customer shall work with HOL to classify like energy devices such that similar devices can be consolidated to similar energy usage profiles for energy billing purposes. When requested by HOL, the customer shall consolidate their separate unmetered billing accounts down to at least the number of similar energy profile classifications or less.

Security deposits, billing and payment options are handled as specified in HOL Conditions Of Services document ECS0012.

6.3 Work by HOL

HOL Connection, isolation and re-energization fees are calculated based on the methodology in Appendix G of HOL Conditions of Services document ECS0012. Work by HOL beyond a simple connection onto the overhead or underground system is at the customer's expense.

For additional information or price quotations, contact the HOL Service Desk. Refer to HOL Conditions of Services for contact information.

6.4 Disruptive Loads

Disruptive loads are resolved as specified in HOL Conditions of Services document ECS0012 and ECG0008. Where disruptive customer loads persist, the unmetered customer may be billed for subsequent HOL restoration costs, or may be electrically isolated or permanently removed from the HOL distribution network.

For planned and unplanned outages, refer to HOL document ECS0025 for unmetered customer service reporting, investigation, and restoration process.

6.5 Audit Costs

Unmetered service customers are responsible for the costs associated with any audit.

6.6 Error Costs

HOL encourages voluntary data error disclosure and data quality improvement. Recurring data errors or data quality problems may result in an unmetered load being electrically isolated or permanently removed from the HOL distribution system, with the option for the customer to upgrade to a metered service from a HOL designated Supply Point.

Where an unmetered service customer volunteers corrected or improved data before commencement of a joint audit, the customer will be responsible for their corrected consumption usage going forward.

To improve the quality of the unmetered data, HOL encourages the unmetered customer to cooperate in a joint audit as described in Section 4.3 of this document. In this case, the customer will be responsible for their associated audit costs and their corrected consumption usage going forward.

If the unmetered customer provides HOL poor unmetered data (i.e. not to audit standards), no data, or late data, the unmetered customer shall pay HOL's field verification and data correction costs, as per HOL Conditions of Services document ECS0012 Appendix G-1.6 – Isolation / Reconnection equivalent costs per each unmetered load, and the corrected consumption usage going forward.

Schedule 1. Audit & Billing Data

Field	Information	Info used for Billing (B) or GIS (G)	Information Source*		Responsibility for On-going Information Accuracy	
			Hydro Ottawa (Service Layout) or Audit	Customer	Hydro Ottawa	Customer
System Voltage	System voltage	G	Y – SL	--	Y	--
Source Circuit ID 1	Transformer the unmetered service is connected to.	G	Y – SL	--	Y	--
Orientation	Designates the secondary feed orientation: Overhead (OH) or Underground (UG)	G	Y – SL – accept customer/ consumer preference if feasible	Y – SL -- indicate preference at time of service layout request	Y	--
Phase	Identifies which primary phase (Red, White or Blue) the unmetered service is connected to.	G	Y -- SL	--	Y	--
Owner Name	Registered Owner of connected Asset. OR Owner of the secondary bus downstream of the Supply Point.	B, G	Y – iSL, Move In/Out	Y – iSL, Move In/Out	Y	--
Energy Jurisdiction	Identifies who is responsible for paying the energy bill	B	Y – iSL, Move In/Out	Y – iSL, Move In/Out	--	Y
CC&B Account No	New or existing HOL CC&B Account Number unmetered service is to be added to.	B	Y	--	Y	--

Load Type	List per “Unmetered Services” on the Service Layout form: AMP/PSUPPLY BUILDING BUS SHELTER CABINET CATHODE DECORATIVE LIGHT FLASHING BEACON FLOW MONITOR GAS REC PARK PEDESTRIAN SIGNAL PHONE BOOTH RAIL STREETILIGHT TRAFFIC CAMERA TRAFFIC SIGNALS WIFI SUPPLY OTHER Included grandfathered fire pumps and billboards.	G	Y – iSL, A	Y – iSL	--	Y
Load Unique Identifier	The customer’s name for their device. The identifier can relate to the equipment type, model number, or other unique identifier. This is loaded into the Audit repository.	G	Y – iSL, A	Y -- iSL	--	Y

Service Point Street Number and/or Service Point Street Name	For small quantity of connections, Service Layouts shall provide the information, not the customer. For large quantity of connections, the customer shall provide addresses in the Hydro Ottawa format as defined in DFS0009. Auto list the permissible addresses per what's available for CC&B / GIS lists The device address is tied to the GPS coordinate provided by Customer.	B, G	Y – SL	Y – SL	Y	--
Total Connected Load (W)	Total load for connected devices.. Same as Billable Load for most Unmetered Loads except for electronically controlled loads such as traffic signals	G	Y -SL	Y –SL		Y
Billable Connected Load (W)	Load in Watts (W) based on 90% power factor. Load to be billed each month and predetermined by HOL and Customer.	B	Y – iSL, A	Y – iSL	--	Y
Hours On Per Day	Number of hours the load will be ON each day calculated as an average for the year. Predetermined by HOL and Customer.	B	Y – iSL, A	Y – iSL	--	Y

Connection Status	Indicate the state of the connection, either Energized or Isolated (the service must be In-Service)	B	Y	Y	Y	
Supply Point	Transformer ID, Bus Ownership (HOL, Street lighting, other)?	G	Y – SL	--	Y	--
Audit Meter Number	Badge number of the check meter when it is being used.	--	Y – A	--	Y	--
LDC Approval Connection Project Number	The service layout request number or the JDE project number.	B	Y	--	Y	--
Misc. Comments	Open free-form field.	--	Y	--	Y	--
LDC Connection Date	Month and year.	B	Y	--	Y	--
State	Indicates the electrical connection status, either Proposed, In-Service, or Removed. When Removed, the record is deleted from GIS.	G, B	Y	Y	Y	Y
GPS Location	Require Northing, Easting per NAD 83, three-degree. This information is needed for placing the device on GIS. When the device is selected on the map, the (X,Y) coordinate is provided.	G	Y – iSL, A	Y – SL	--	Y

Where it appears there are two sources of information, the Customer is to provide the information for HOL's records when requested by HOL. Information obtained by HOL will be used to populate the information database.Where it appears there is responsibility for joint information accuracy, refer to ECS0023 for more detail.

Legend:

- iSL – initially through Service Layout
- SL -- from Service Layout
- A – from audit

Schedule 2. USL Customer Annual Load Accuracy Declaration

I declare that Hydro Ottawa's records below for our unmetered load connected to its distribution system are accurate as of the dates provided.

[List of equipment and details per HOL's record]

I declare the following additions or deletions to the load at the HOL supply points listed below during the time period herein stated.

[List of supply points, load, addition /deletion, date]

Reporting Period: _____

Corporation:

_____

Name:
Title:
Date:

I have authority to bind the Corporation

Submit in PDF format to HOL. It is the responsibility of the USL customer to ensure that HOL has acknowledged receipt of the declaration.

Schedule 3. Unmetered Electrical Supply Bus Usage Agreement

THIS AGREEMENT made in triplicate this day of ,

BETWEEN:

Bus Owner Name
(the “UBO” – unmetered electrical bus owner)

- AND –

Connection Applicant Name
(the “UCA” – unmetered electrical bus connection applicant)

- AND –

HYDRO OTTAWA LIMITED

(“Hydro Ottawa”)

WHEREAS UCA is requesting an electrical unmetered Secondary Voltage service(s) supplied from Hydro Ottawa through the UBO unmetered electrical bus;

WHEREAS the UBO and the UCA is related by the same company/government/agency by ownership or affiliation;

WHEREAS this agreement does not provide permission for access to the public road allowance, access to Hydro Ottawa’s support structure, or land rights;

WHEREAS this agreement is for the use of unmetered electrical energy and not for generation of electrical energy;

AND WHEREAS UCA’s connection to the UBO’s unmetered electrical bus does not make the UBO an un-licensed electrical distributor as per Ontario Regulation 161-99.

ARTICLE I

DEFINITIONS

In and for the purpose of the Agreement:

I.1. **Affiliate** means a company that is affiliated with another within the meaning of the Canada Business Corporations Act.

I.2 **Business Day** means the hours from 8:00 a.m. to 4:00 p.m., Eastern Time, on the weekdays from Monday to Friday inclusive with the exception of statutory holidays observed by Hydro Ottawa;

I.3. **Conditions of Service** means the published document describing the operating practices and connection policies of Hydro Ottawa as mandated by the Ontario Energy Board through the Distribution System Code and is available on Hydro Ottawa's website www.hydroottawa.com;

I.4. **Demarcation Point** means the electrical point at which the Secondary Voltage supply cables terminate and change ownership between: 1. Hydro Ottawa and the UBO, or 2. the UBO and the UCA. Each UBO / UCA Demarcation Point shall have weatherproof field tagging indicating the change of ownership;

I.5. **Emergency** means any abnormal system condition that requires remedial immediate action to prevent or limit loss of a distribution system or the supply of electricity that could adversely affect the reliability of the electricity system. The electrical context of Emergency includes prevention of loss of life or property;

I.6. **ESA** means the Electrical Safety Authority of Ontario;

I.7. **Governmental Authority** means any government, parliament, legislature or any regulatory authority, agency, commission or a board of any government, parliament or legislature, or any political subdivision thereof, or any court or, without limitation to the foregoing, any other law, regulation or rule making entity or any person acting under the authority of any of the foregoing or any other authority charged with the administration or enforcement of laws;

I.8. **Representatives** in reference to a party, means the party's directors, officers, employees, and agents and contractors;

I.9. **Secondary System** means the electrical equipment operating at the Secondary Voltage;

I.10. **Secondary Voltage** means less than or equal to 750V;

I.11. Words of similar import have reference to this Agreement as a whole and not to any particular article, section, subsection, or clause of the Agreement;

I.12. The singular includes the plural, the plural the singular, and any gender the other gender; and

I.13. Headings are included for convenience and references only and shall not affect the interpretations hereof.

ARTICLE II

UCA'S COVENANTS

II.1. The UCA shall be subject to the terms hereof, Hydro Ottawa's Conditions of Service, and the UBO's standards at the UCA's sole cost;

II.2. The UCA shall apply for permission in writing with both the UBO and Hydro Ottawa in advance of its new connections on the UBO's unmetered electrical bus. The UCA shall provide technical information required by the UBO so that the UBO can assess the individual connection request feasibility.

II.3. Each UCA connection shall be meet the Ontario Electrical Safety Code requirements and shall be approved for its connection by ESA.

II.4. The UCA shall report any changes in writing to its connection with the UBO and Hydro Ottawa within five (5) Business Days.

II.5. The UCA shall have a valid unmetered energy billing account with Hydro Ottawa in good standing.

II.6. The UCA shall have a Municipal Access Agreement, a temporary encroachment permit from the road authority, or legislative rights to install and maintain its equipment within the public road right of way.

II.7. The UCA shall maintain and protect its electrical system is good working order.

II.8. The UCA shall have accurate records of its electrical system location, loads, and its Demarcation Point.

II.9. The UCA shall meet the UBO standards for the UCA's connection on the UBO's unmetered electrical bus.

II.10. The UCA shall not make or break a connection on the UBO or Hydro Ottawa's unmetered electrical bus.

II.11 The UCA shall not allow other unmetered customers that are related by the same company/government/agency by ownership or affiliation, to connect to its unmetered electrical bus without a similar agreement with Hydro Ottawa.

II.12 The UCA acknowledges that use of the unmetered electrical energy from the UBO's unmetered electrical bus on an as-is basis and the UBO and Hydro Ottawa shall not be liable for the reliability or power quality of the energy provided.

II.13 As UCA Representative changes occur, the UCA shall provide Hydro Ottawa with the required local UCA contacts for:

a. Planned field installations, adjustments, and removals,
b. 24/7 emergency response to repair, adjust, and remove attachments due to emergency work.

ARTICLE III

UBO'S COVENANTS

III.1. The UBO shall be subject to the terms hereof, Hydro Ottawa's Conditions of Service, at the UBO's sole cost.

III.2. The UBO shall apply for permission in writing with Hydro Ottawa in advance of its new connections.

III.3. Each UBO connection shall be meet the Ontario Electrical Safety Code requirements and shall be approved for its connection by ESA.

III.4. The UBO shall report any changes in writing to its connection with Hydro Ottawa within five (5) Business Days.

III.5. The UBO shall have a valid unmetered energy billing account with Hydro Ottawa in good standing.

III.6. The UBO shall have a Municipal Access Agreement, a temporary encroachment permit from the road authority, or legislative rights to install and maintain its equipment within the public road with of way.

III.7. The UBO shall maintain and protect its electrical system is good working order.

III.8. The UBO shall have accurate records of its electrical system location, loads, and its Demarcation Point.

III.9. The UBO shall make and break the UCA connections with its competent Representative on its unmetered electrical bus provided that the UAC has provided reasonable written notice to the UBO.

III.10. The UBO shall not make or break a connection on Hydro Ottawa's unmetered electrical bus.

III.11 The UBO shall not allow other unmetered customers that are not related by the same company/government/agency by ownership or affiliation, to connect to its unmetered electrical bus unless authorized by the Ontario Energy Board. The UBO may allow other unmetered customers that are related by the same company/government/agency by ownership or affiliation, to connect to its unmetered electrical bus by executing this agreement with Hydro Ottawa.

III. 12 As UBO Representative changes occur, the UBO shall provide Hydro Ottawa with the required local UBO contacts for:

a. Planned field installations, adjustments, and removals,
b. 24/7 emergency response to repair, adjust, and remove attachments due to emergency work.

ARTICLE IV

HYDRO OTTAWA'S COVENANTS

IV.1. Hydro Ottawa shall be subject to the terms hereof and its Conditions of Service.

IV.2. Hydro Ottawa shall not connect the UBO or allow connection of the UCA without approval from ESA for their new or modified electrical connections.

IV.3. Hydro Ottawa shall maintain and protect its electrical system is good working order.

IV.4. Hydro Ottawa shall bill the UBO and UCA for use of their unmetered energy as a result of this Agreement through UBO and UCA's unmetered energy account(s) with Hydro Ottawa.

IV.5. Hydro Ottawa may break the UCA connection on the UBO's unmetered electrical bus during an Emergency, when the UCA is in arrears for its energy account(s) with Hydro Ottawa, or when ordered by a Governmental Authority. Hydro Ottawa shall notify the UBO and the UCA of such disconnection.

IV.6. Hydro Ottawa shall respond to the UCA unplanned outage notification (see Hydro Ottawa Unmetered Outage Protocol – ECS0025). If the outage is with Hydro Ottawa's system, it will proceed to rectify the electrical supply. If the outage is not from Hydro Ottawa's system, the UCA is to contact the UBO's Representative to coordinate the investigation and repairs(s) as required.

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1.1.1.1 ARTICLE V

RIGHT OF TERMINATION

V.1. Hydro Ottawa shall be entitled to terminate this Agreement by notice in writing to the UBO and the UCA, in the opinion of Hydro Ottawa, is in substantial breach of this Agreement and fails to rectify such breach within thirty (30) Business Days of notice in writing delivered to him by Hydro Ottawa or fails to commence such rectification within the said time and proceed with dispatch to its completion or if the breach cannot reasonably be rectified within thirty (30) Business Days.

V.2. Any Governmental Authority with jurisdiction of any or all parts of this Agreement shall be entitled to terminate this Agreement by notice in writing.

V.3 The UBO can terminate any UCA connections do to re-arrangements or additional capacity requirements with the UBO's unmetered bus with ninety (90) days written notice to the UAC and Hydro Ottawa. On such a termination, the UCA may request a supply point directly from Hydro Ottawa.

V.4 If for whatever reason the UBO and the UCA relationship by the same company/government/agency by ownership or affiliation ceases, the UCA notify Hydro Ottawa within thirty (30) Business Days and remove all of its electrical connections from the UBO's unmetered electrical bus within 180 Business Days.

ARTICLE VI

NOTICE

VI. 1. Any notice required or contemplated by this Agreement shall be in writing and shall be conclusively deemed to have been given to the party to whom it is addressed if the same is mailed by registered mail, post prepaid as follows:

(a) to Hydro Ottawa if delivered or mailed by prepaid post addressed to Hydro Ottawa at:

2711 Hunt Club Rd
PO Box 8700
Ottawa, Ontario
K1G 3S$

Attention: Director, Distribution Asset Management

(b) to the UBO if delivered or mailed by prepaid post addressed to the UBO at:

Attention:

(c) to the UCA if delivered or mailed by prepaid post addressed to the UCA at:

Attention:

VI.2. Each party has the right to change its address for the purpose of servicing notices and invoice by notice to the other at the address then in force.

ARTICLE VII

TERM OF AGREEMENT

Time shall be the essence of this Agreement. The term of this Agreement shall be from the date of execution to the Termination date and the payment of all Hydro Ottawa costs.

ARTICLE VIII

ASSIGNS AND SUCCESSORS

VIII.1. This Agreement and all covenants, conditions, and provisions herein contained shall enure to the benefit of and be binding upon each of the parties hereto and their respective heirs, executors, administration, successors and permitted assigns.

VIII.2. No Party may assign this Agreement without the prior written consent of the others, not to be unreasonably withheld. Any assignment without such consent will be void and of no effect.

ARTICLE IX

GOVERNING LAW

IX.1. This Agreement and the rights of the parties hereto hereunder shall be governed by and construed according to the laws of the Province of Ontario and the federal laws of Canada applicable therein.

IX.2. If any item of this Agreement shall be found to be unlawful, such term shall be deemed to be severable and the remainder of this Agreement shall be and remain in full force and effect.

ARTICLE X

NO PARTNERSHIP / JOINT VENTURE / AGENCY

The parties expressly disclaim any intention to create a partnership, joint venture or agency. It is understood and agreed that nothing contained in this Agreement nor any acts of any party will constitute or be deemed to constitute neither the parties as partners or joint venturers nor any party as agent of the other for any purpose.

IN WITNESS THEREOF the parties hereto have caused this Agreement to be executed by their respective representatives duly authorized in that behalf.

UBO:

Name:

Title:

Date:

I have authority to bind the Corporation

UCA:

Name:

Title:

Date:

I have authority to bind the Corporation

Hydro Ottawa Limited

Name:

Title:

Date:

I have authority to bind the Corporation