REQUIREMENTS FOR HIGH VOLTAGE METERING

Approvals:
- All Meters/Instrument Transformers/Wiring will meet Measurement Canada Standards.
- Drawings of the proposed high voltage switch gear must be provided to the Customer Connections Metering Department and must show the metering cell(s) and is to be approved by Horizon Utilities Corp prior to manufacture.
- Final single line diagram must be approved by Horizon prior to purchasing.
- All equipment must be CSA approved.
- An ESA Authorization for Connection must be provided for the metering before the service will be energized.

Required Plans:
- Single Line Diagram, Electrical Room Layout and Building Floor Plan must be submitted to Customer Connections.

IT Cell
- Instrument Transformer (IT) cell for each for each metering point.
- IT cell to be located in High Voltage switchgear
- IT cell is for the sole purpose of Horizon Instrument Transformers
- Configured for 3 Element metering, including 3 CTs and 3 PTs connected in a star configuration with the common point connected to the system neutral within the IT Cell.
- Provision for both primary and secondary metering connections to the system neutral within the IT cell.
- ITs to be installed and primary connections to be made by switchgear manufacturer.
- Horizon will purchase and ship ITs directly to switchgear manufacturer.
- Current Transformers (CT) and their secondary terminals are to be readily accessible (without dismantling bus work), usually from the front or back of the cell via a hinged door.
- Any access doors to the metering cell and equipment shall include provision for sealing and padlocking by Horizon Utilities Corp.
- Potential Transformers (PT) are to be positioned so that the fuses can be changed with the service energized. (transformer drawers are not permitted)
- PTs are to be connected to the line side of the CTs only.
- Grounding ball studs to be installed on the line and load side of the CT bus bars
- Switchgear heaters are required. To be humidistat controlled for indoor applications and both humidistat and temperature controlled for outdoor applications.

Meter Cabinet
- Remote meter cabinet to be located inside same room as the IT Cell.
- Horizon must have unrestricted access to meter cabinet location.
- The centre of the cabinet to be mounted 5 feet from floor grade
- Must be padlockable.
- Min size: 36” x 36” or low voltage cell in metal clad switchgear dedicated for Horizon Utilities Corp.
- Removable back plate.
- Dedicated 120Volt 15A receptacle located inside cabinet.
- To be grounded by customer as per ESA grounding rules.
- Meter cabinet specifications must be approved prior to purchasing.

Meter and Wiring
- Horizon to supply and install meter and associate wiring from meter (unless where it is pre-wired by the switchgear manufacturer and wiring meets Measurement Canada wiring standards and colour coding and must correspond to the primary phasing. ABC rotation).
- The customer is required to install one 1” conduit from EACH metering cell to the meter enclosure.
- The customer is required to install one 3/4” min conduit from the meter enclosure to the nearest outside wall for communication antenna. Location and route to be determined by Horizon
- Metering circuits for exclusive use of Horizon revenue metering.
- Standard meter does not include any customer accessible options.
- Customer accessible options will be considered as requested by customer.