



# Meter Power Supply Options

Gordana Andjelkovic  
Hydro One Networks Inc.



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# Meter Power Supply Options

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Hydro One standard metering power supply options

- MAIN meter auxiliary powered from Station Service
- ALTERNATE meter self powered from metering VT
- Meters powered from separate sources



# Meter Power Supply Options

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## Non-standard operating conditions

- Networked stations with transformers subjected to long term disconnection from the Grid and kept off potential (3 - 6 years)
- Alternate meter powered down long term

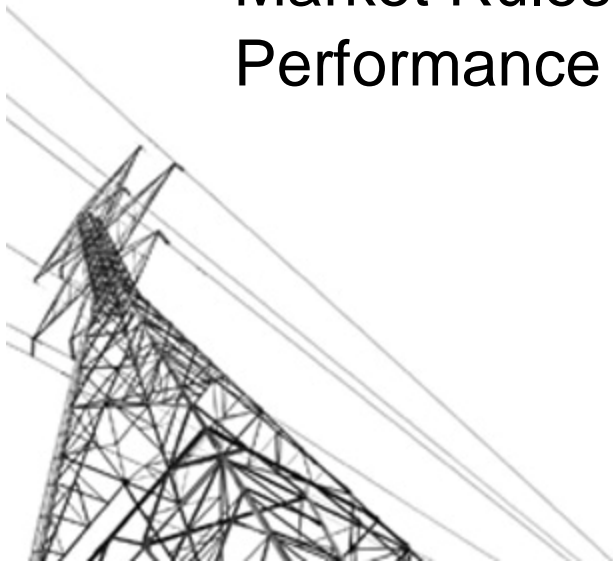


# Meter Power Supply Options

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## Issues:

- Daily communication MTRs
- Main/alternate data validation disabled
- State of the meter unknown
- Market Rules Chapter 6 Wholesale Meter -  
Performance of Metering Installation Non-compliance



# Meter Power Supply Options

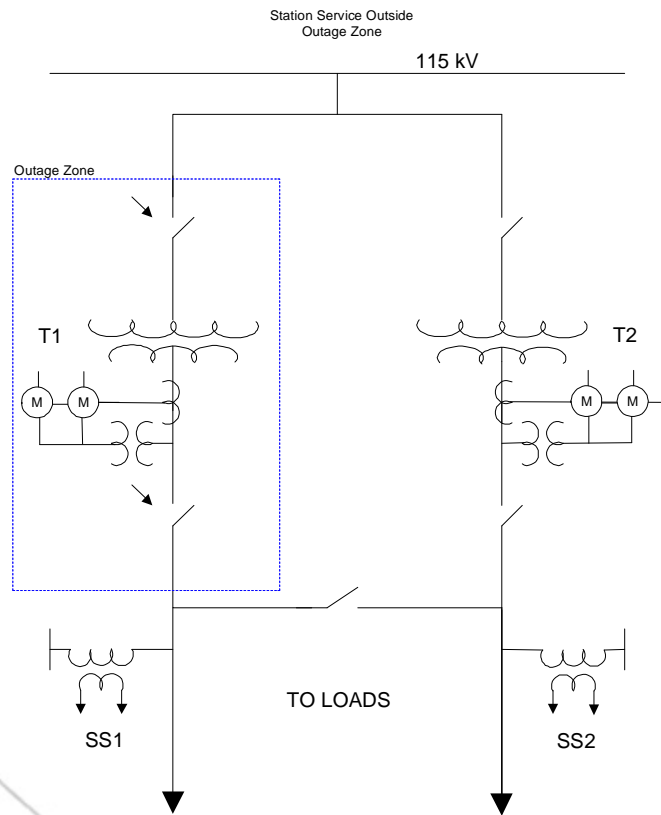
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## Recommendation:

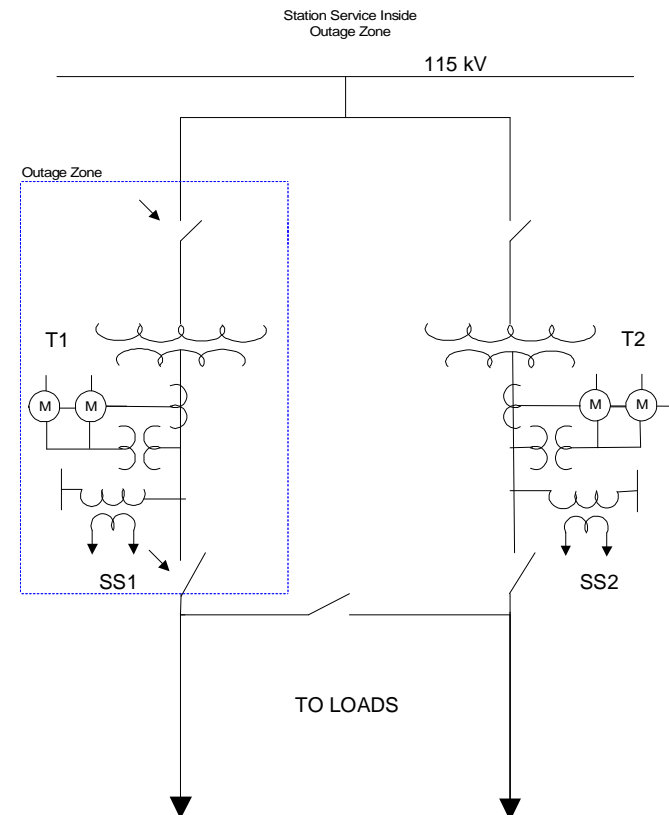
- Standardize approach for the AC supply to meters in non-standard operating configurations
- Review Market Rules
  - Market Rules not intended for long term de-energized Grid connections



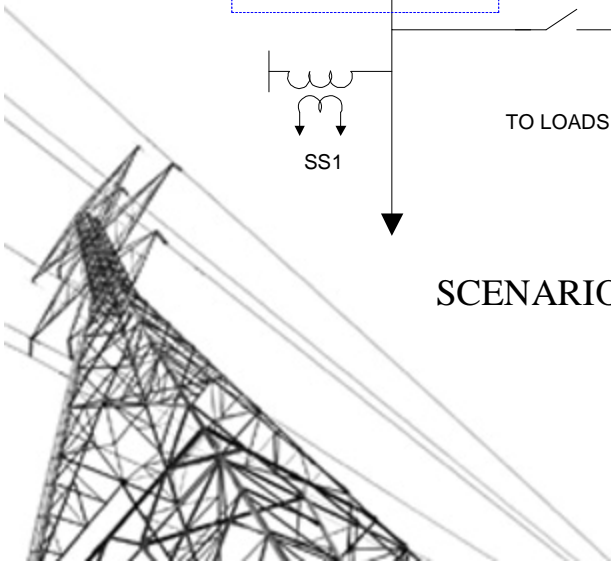
# Meter Power Supply Options



SCENARIO 1



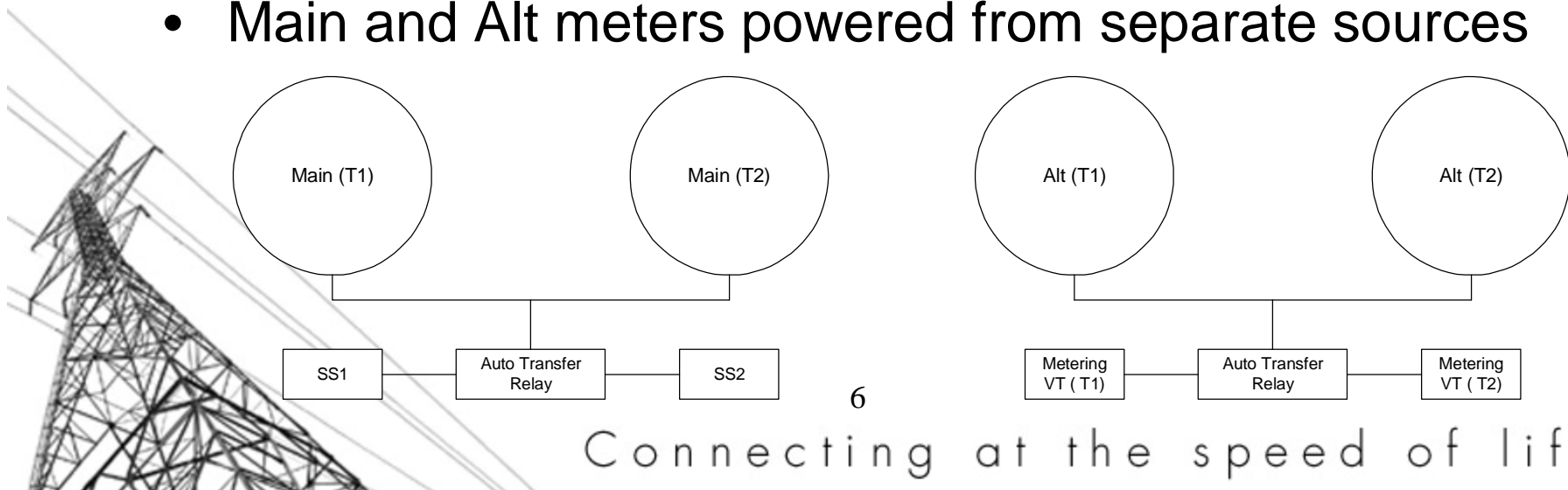
SCENARIO 2



# Meter Power Supply Options

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- MI not subjected to Power Switching
- Main meters aux powered from SS with Auto Transfer Scheme between Station Services
- Alt meters aux powered from metering VTs with Auto Transfer Scheme between metering VTs
- Main and Alt meters powered from separate sources



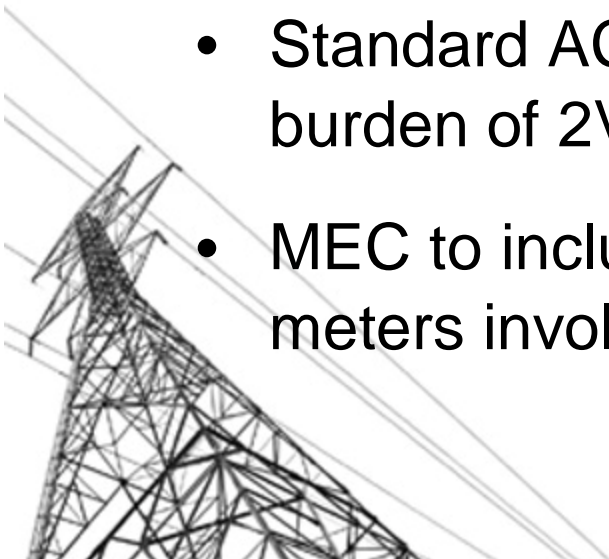
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- Suggested solution complies with Wholesale Revenue Metering Standard - Hardware Section 5.4.2

Item	Main Meter	Alternate Meter
Self Power		Not the same source as the main meter.
Power Switching	From an external source.	Connected to phase power.

- Standard AC Transfer Relay to be used with nominal burden of 2VA
- MEC to include burden of Auto Transfer Relay and all meters involved in Auto Transfer Scheme

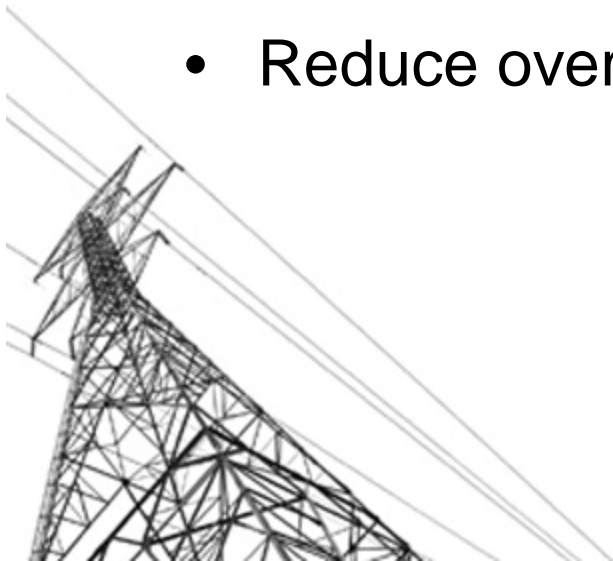


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## Benefits:

- Enable communication with Wholesale Registered Metering equipment
- Eliminate daily communication MTRs
- Enable Main/Alt data validation
- Reduce overall risk to IESO Market



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Does the RMSC accept in principle the following recommendation?

1. Use of an Auto Transfer Scheme for Wholesale Revenue Metering aux supply in non-standard operating configurations

