

# Processing Totalization Tables for multiple MSP meter activities at the same facility

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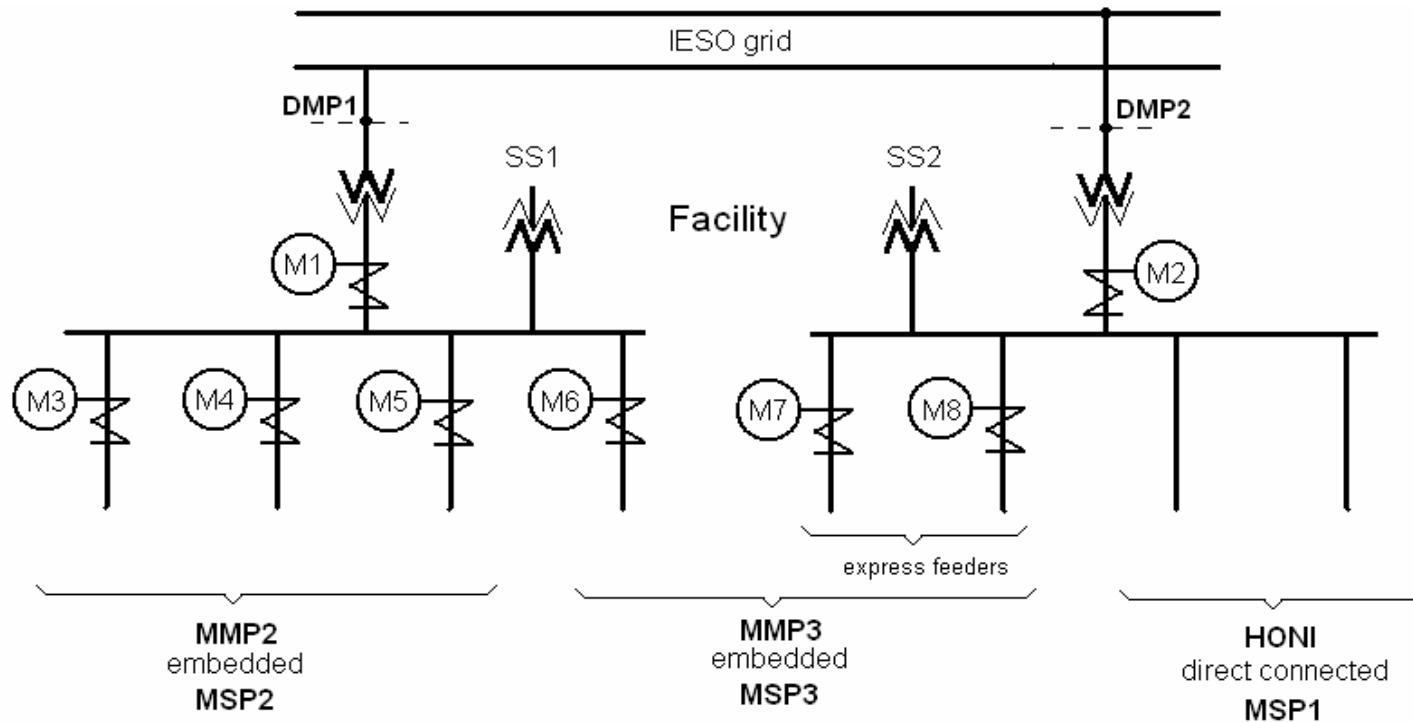
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## Introduction

- It often happens that more than one MSP is working simultaneously within the same facility – meter upgrades, new meter installations, totalization table upgrades.....
- This situation creates critical coordination issues in the Registration Process for the IESO and for the Host MSP (usually Hydro One).
- There is an increased potential to make a mistake.
- Consider the following example of two MSPs (MSP2 and MSP3) working simultaneously within a HONI (MSP1) TS:
  - HONI (the host) has 2 directly connected feeders and the M1 and M2 bus meters,
  - MSP2 has 3 embedded feeders - M3, M4, and M5 meters. They submitted all registration documents for the M3 meter upgrade and requested a HOTLINE ticket, and
  - MSP3 has 3 embedded feeders - M6, M7, and M8 (where M7 and M8 are express feeders). MSP3 submitted a totalization table upgrade to change the M7 TLF to an SSLA transformer + radial line and station service.

## Overview of the original settlement configuration



- $\text{Load}_{\text{HONI}} = \text{M1} * \text{SSLA}_{\text{T1}} + \text{M2} * \text{SSLA}_{\text{T2}} - \text{Load}_{\text{MMP2}} - \text{Load}_{\text{MMP3}}$
- $\text{Load}_{\text{MMP2}} = (\text{M3}_{\text{old}} + \text{M4} + \text{M5}) * (1 + 0.034)$
- $\text{Load}_{\text{MMP3}} = \text{M6} * (1 + 0.034) + \text{M7} * (1 + 0.006) + \text{M8} * (1 + 0.006)$

## Registration process for the M3 Meter Upgrade – MSP2

- All registration documents (package 1 and 2) were previously approved and MSP2 submits the totalization table with the following configuration:

$$\text{Load}_{\text{MMP2}} = (\text{M3}_{\text{new}} + \text{M4} + \text{M5}) * (1 + 0.034)$$

- MSP1 will submit a table for HONI (the host):

$$\text{Load}_{\text{HONI}} = \text{M1} * \text{SSLA}_{\text{T1}} + \text{M2} * \text{SSLA}_{\text{T2}} - (\text{M3}_{\text{new}} + \text{M4} + \text{M5}) * (1 + 0.034) - (\text{M6} * (1 + 0.034) + \text{M7} * (1 + 0.006) + \text{M8} * (1 + 0.006))$$

- IESO reviews the tables and opens a ticket for MSP2 with a Specific Schedule Date. As this is a field activity the ticket may be open for an extended period of time.

## Registration Process for the Totalization Table Upgrade - MSP3

- In the meantime, MSP3 proceeds to change the M7 TLF to an SSLA transformer and radial line + station service, and submits the following documents to the IESO:
  - Form 1040 for  $SSLA_{TIT2}$  calculated with method 2 (needed for the loss allocation).
  - Form 1040 for  $SSLA_{RAD}$  Radial line for M7 meter (calculated up to the DMP).
  - Form 1311 Station Service for a Non Metered station service (SS).
  - An agreement for loss allocation - assume the allocation is based on feeder counts 1/8 for MMP3.
  - A Totalization Table showing:
 
$$\text{Load}_{MMP3} = M6*(1+0.034) + M7*SSLA_{RAD} * 1/8 \text{ (applied to } SSLA_{TIT2}) + 1/8*SS + M8*(1+0.006)$$
  - MSP3 opens a ticket calling the IESO for a totalization table upgrade. In response the IESO queues the table (assuming no further documentation is required).
- MSP1 now submits a table for HONI (the host):
 
$$\text{Load}_{HONI} = (M1+M2)*SSLA_{TIT2} - (M3_{old}+M4+M5)*(1+0.034) - (M6*(1+0.034) + M7*SSLA_{RAD} * 1/8 \text{ (applied to } SSLA_{TIT2}) + 1/8*SS + M8*(1+0.006))$$

$$\text{Trans}_{HONI} = (M1+M2)*SSLA_{TIT2}$$
- Because the table is queued, the IESO processes the table and the above settlement configuration becomes active.

## Registration process for the M3 Meter Upgrade – MSP2

- The original table submitted by MSP1 for M3 Meter Upgrade now becomes invalid.
- The IESO expires this table and MSP1 must now submit a new table based on the latest active configuration:

$$\text{Load}_{\text{HONI}} = (M1+M2)*\text{SSLA}_{\text{T1T2}} - (M3_{\text{new}}+M4+M5)*(1+0.034) - (M6*(1+0.034) + M7*\text{SSLA}_{\text{RAD}}*1/8 \text{ (applied to } \text{SSLA}_{\text{T1T2}} \text{ )} + 1/8*\text{SS} + M8*(1+0.006))$$

$$\text{Trans}_{\text{HONI}} = (M1+M2)*\text{SSLA}_{\text{T1T2}}$$

- If the E2E test for  $M3_{\text{new}}$  is completed before the MSP1 table is received, the IESO is unable to process the meter upgrade (need the Host table).

## Direction

- **The IESO will convene a working group to review the work flow.**
- **Representatives from the MSPs and IESO staff will be requested to participate.**
- **The proposed mandate of the group will be to:**
  - **Enable more than one MSP to work in a single facility.**
  - **Clarify the roles of the IESO, the host MSP, and the MSPs.**
  - **Reduce the risk of an error being made.**
  - **Meet settlement timelines.**
  - **Comply with the obligations of the Market Rules.**
- **The output from the group will be draft procedures for achieving this mandate.**