

microFIT Screening & Reporting Requirements

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Agenda

1. Review Distributor obligations with respect to keeping our systems safe and reliable.
2. Background on lack of microFIT data and system challenges.
3. Hydro One's requirements for microFIT screening of different classes (voltages) of feeders.
4. Using capacity calculator.
5. The need to keep our records current to ensure we know when limits have been reached.
6. What are the actions required going forward.

Distribution System Code

Obligation to Protect the Distribution System Section 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...”

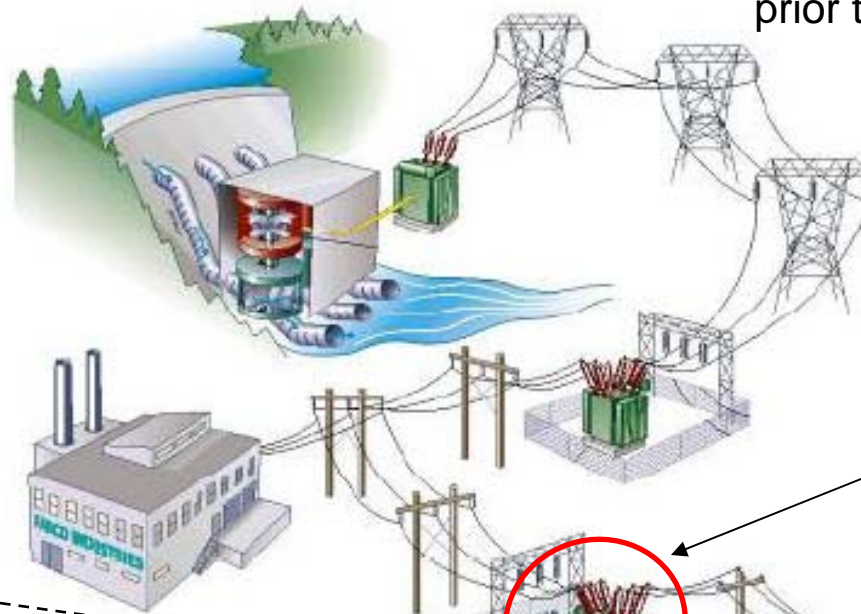
Background

- microFIT program popularity contributed to constraints.
- Limited data on status of LDC microFIT connections.
- Current data needed to accurately monitor TS capacity limits, system and equipments limits.

Ongoing FIT Challenges

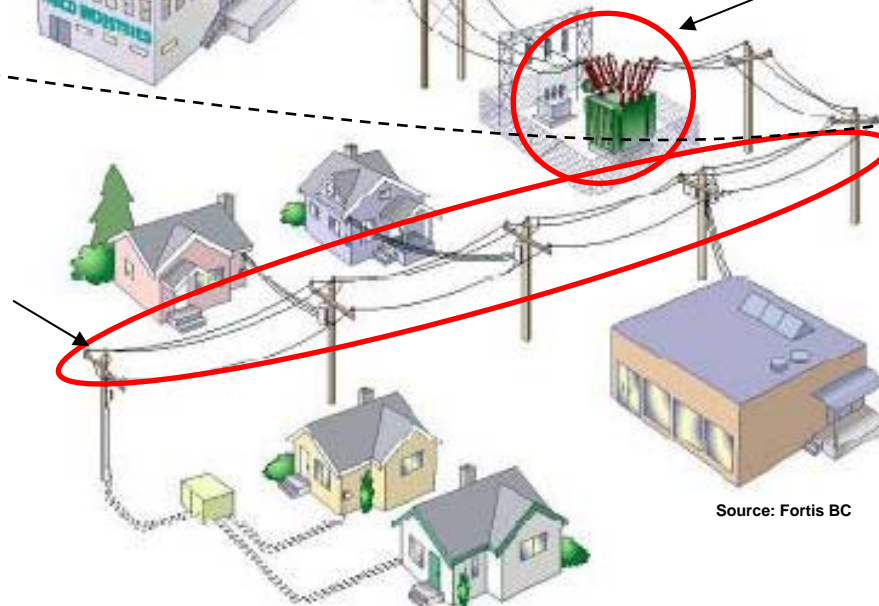
Distribution limitations (equipment/system, capacity constraints) & power quality impacts are **not assessed** prior to connection for mFIT projects.

Transmission System



Limitations at transformer stations

Distribution System



Source: Fortis BC

Current microFIT Screening on Dx

- System evaluation - M class and F class feeders
- Classes differentiated by supply and voltage
- M Class feeders:
 - directly connected to Tx TS's,
 - nominal voltages of 44, 27.6, and 13.8 kV
- F Class feeders:
 - directly connected to Dx TS's
 - nominal voltages of 12, 8, and 4 kV

Dx microFIT Screening

- Equipment limitations respected by:
 - not exceeding 400 amps on M Class feeder and 200 amps on F Class feeders.
- Dx system limitations respected by:
 - applying 10% factor of peak load for M Class feeders and 7% factor of peak load for F Class feeders.
- Limits respected by embedded LDC by:
 - applying it directly to their known peak loads in either feeder class.

Current microFIT Screening on Dx

Embedded LDC with:

- M Class feeder with peak load of 10 MW can install 1 MW generation.
- F Class feeder with peak load of 5 MW can install 350 kW generation.

New microFIT Screening & Reporting Requirements

Embedded LDCs now required to:

- follow the 7 and 10% rule.
- know their feeder peak loads to calculate maximum allowable generation.
- track all connections ensuring maximum allowable generation not exceeded.

Capacity Calculator

- Capacity calculator assists LDCs in determining if offers to connect should be executed.
- Calculator is posted on web at <http://www.hydroone.com/Generators/Pages/StationCapacityCalculator.aspx>.

Collecting Data

- Hydro One sending communication end of week.
 - copy of this presentation.
 - spreadsheet for LDC to list all microFIT generation connected and approved to be connected.
- Information needed by mid September.
- Urgency to collect - we don't know what all has been connected to date.

Ongoing Requirements

- Regular updates need to be provided on a minimum 6 month basis.
- If the volume is larger than expected more frequent updates may be requested.
- Some LDC's on this webinar will see a request for the information on their Tx connected supplies on a 6 month basis as well.
- Excel sheet will be the same as the one sent out post presentation.

Questions?