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Proposed Enhancements to the 'Ontario Automatic Under-Frequency Load Shedding (UFLS) Program'

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Purpose

- Provide an overview of coming UFLS program enhancements;
 - Simplified UFLS data collection;
 - Clarified market participant (MP) obligations;
 - Decreased compliance burden; and
 - Response to NPCC concerns
- Clearly define what UFLS participants can expect from the IESO, and actions needed to meet UFLS program requirements
- Seek feedback from UFLS participants around possible enhancements to improve the delivery of the program (short and long-term)

UFLS Program Purpose and Obligations

Automatic UFLS is intended to improve reliability by protecting the system from collapse due to falling frequency caused by a significant generation-load imbalance

The IESO is required to meet related NERC and NPCC compliance obligations for the Ontario area. Some of these obligations are made applicable to MPs through the Market Rules

UFLS Program Survey

To ensure Ontario meets this UFLS target, the IESO conducts an annual survey of Market Participants on criteria stipulated in Market Manual 7.1 'IESO Controlled Grid Operating Procedures'

Here are some survey details:

- Survey issued circa June 30;
- Survey day is 3rd Tuesday of July @5 pm;
- MP submissions due in mid-September; and
- UFLS survey analysis due in Q1 of following year

UFLS Program Overview

Who participates in the UFLS Program:

- Transmitters; and
- Distributors and connected wholesale customers with a peak load of 25MW or greater

Current Program Challenges

- Ambiguous reporting obligations for distributors when the transmitter provides UFLS tripping for their load;
- Non-intuitive survey forms that make for a challenging user experience; and
- Inadequate controls to provide assurance of minimal overlap between manual and automatic load shedding programs

Impact of Program Challenges

These challenges result in:

- Increased administrative burden for both MPs and the IESO;
- Redundant submissions from MPs;
- Excessive follow-up and time-consuming rework; and
- Unmitigated reliability risk that the automatic UFLS program may be degraded by manual load-shedding actions

Proposed Enhancements

- Clearly defined UFLS program applicability and reporting obligations that reflect legacy UFLS relay ownership/control by the transmitter;
- Transmitters to report load and automatic UFLS data where automatic UFLS tripping is provided at a transmitter-owned/operated facility (via [Form-1719](#))
- Distributors to report load and automatic UFLS data for only those facilities they own and operate (via [Form-1719](#))
- Revised [Form-1719](#) will also include a request for manual load shedding data

Process and Guidance

- Participants who no longer receive a request to submit automatic UFLS data will now be required to submit new [Form-113](#) 'Manual Load Shedding Data Collection' to the IESO
- The annual survey notification will indicate which form you are required to complete
- A guideline document will be available to support you in completing survey requests

Summary of Key Changes:

- [Form-1719](#) will be issued to transmitters, distributors and connected wholesale customers who own UFLS equipment
- [Form-1719](#) will be modified to include a request for manual load-shedding data
- In cases where you do not own the UFLS equipment, and the transmitter provides your automatic UFLS data, you will only be required to complete new [Form-113](#)

Summary of Benefits

- Clarity in Market Participant reporting obligations
- Reduced administrative burden for many Ontario Market Participants
- More intuitive forms and survey guide to support MPs
- Minimized overlap between automatic UFLS program and manual load shedding capabilities

Opportunity for Feedback

Both Form-1719 and Form-113 are currently included in Baseline 47.1 for stakeholder feedback

- The UFLS team is interested in feedback to continue to enhance our program administration and delivery
- Market Participants may provide feedback on the drafts up until April 29, 2022
- Where possible, feedback will be incorporated into the 2022 survey and guide
- Longer-term enhancements will be considered for the 2023 survey

2022 Schedule

Date	Activity
April 21, 2022	Industry Webinar: Under Frequency Load-Shedding (UFLS) Program Enhancements
April 29, 2022	Baseline Comment Period End Date
June 30, 2022	2022 UFLS Survey Notifications are issued
July 19, 2022	2022 UFLS Survey date
September 16, 2022	2022 UFLS Survey Due Date

Subject Matter Experts

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Thank You

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