

# REVISIONS TO OP-21 & OP-21A – Energy Inventory Accounting and Actions During An Energy Emergency & Generator Survey

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## *Energy Emergency Forecasting and Reporting*



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# OP-21 Revisions Overview

**Proposed Effective Date: November 2018**

The proposal to revise OP-21 was presented at the July 11-12, 2018 Reliability Committee meeting and focused on:

- Developing an energy forecasting and reporting framework to establish energy alert thresholds based on an energy assessment over the next 21 days of operation that includes fuel and emissions availability as well as anticipated fuel infrastructure availability and supplies
- Establishing Forecast Alert Thresholds issued by the ISO based on its energy assessment
- Using the forecasting and reporting process to inform the declaration of Energy Alerts and Energy Emergencies which would allow for proactive responses in advance of an Energy Emergency declaration



# Proposed Revisions

The proposed revisions to OP-21 are extensive and fall into the following general categories:

- Incorporation of Energy Emergency Forecasting and Reporting Process, including Forecast Alert Thresholds
- Incorporation of criteria for declaration of Energy Alert and Energy Emergency
- Modified data collection frequencies
- Other revisions and clarifications

Additionally, revisions to OP-21A (Generator Survey) are proposed to support the Energy Emergency Forecasting and Reporting Process



# Overview of Changes

- A review of the OP-21 and OP-21A redline documents will be performed at this meeting, however a brief summary of changes is provided on upcoming slides



# Overview of OP-21 Changes

## *Incorporation of Energy Emergency Forecasting and Reporting Process*

### Section II.B.

- ISO will perform Energy Emergency forecasting and reporting based on available data, including data submitted from Lead MPs through OP-21A
- Energy Emergency forecasting is an hourly 21-day energy assessment
- Periodicity of forecast & report will be as follows:
  - **Normal Conditions** (Section III.A):
    - Weekly, in the months of December – March
    - Bi-weekly, in months of April – November
  - **Energy Alert Conditions & Energy Emergency Conditions** (Section III.B):
    - Daily
- Results of 21-day energy assessment are compared with Energy Emergency forecast alert thresholds in order to identify and communicate potential reliability issues to regional stakeholders
- ISO will publish results of each Energy Emergency forecast on the ISO's website



# Overview of OP-21 Changes

## *Incorporation of Forecast Alert Thresholds*

### Section II.B.

- **Forecast MLCC-2 (FMLCC2)** – indicates that available resources during any hour of the Operating Day are forecasted to be less than 200 MW above those required to meet Operating Reserve requirements.
- **Forecast Energy Emergency Alert Level 1 (FEEA1)** – indicates that available resources during any hour of the Operating Day are forecasted to be less than those required to meet Operating Reserve requirements, and that implementation of OP-4 Actions 1 through 5 is being forecasted.
- **Forecast Energy Emergency Alert Level 2 (FEEA2)** – indicates that available resources during any hour of the Operating Day are forecasted to be less than those required to meet Operating Reserve requirements and that implementation of OP-4 Actions 6 through 11 is being forecasted.
- **Forecast Energy Emergency Alert Level 3 (FEEA3)** – indicates that available resources during any hour of the Operating Day are forecasted to be insufficient to serve firm load requirements, and implementation of firm load shedding under OP-7 is being forecasted.



# Overview of OP-21 Changes

## *Criteria for declaration of Energy Alert and Energy Emergency*

- (Section III.A.) **Normal Conditions** exist any time that neither an Energy Alert nor an Energy Emergency has been declared
- (Section III.B) **Energy Alert** is declared by ISO when:
  - FEEA2 is forecasted to occur in at least 1 hour on 1 or more consecutive days of the 21-day energy assessment, or
  - FEEA3 is forecasted to occur in at least 1 hour on 1 or more consecutive days in days 6 through 21 of the 21-day energy assessment
- (Section III.C) **Energy Emergency** is declared by ISO when:
  - FEEA3 is forecasted to occur in at least 1 hour on 1 or more consecutive days in days 1 through 5 of the 21-day energy assessment, or
  - Shedding of firm load under OP-7 is occurring or is anticipated to occur due to an actual energy deficiency

# Overview of OP-21 Changes

## *Modified Data Collection Periodicities*

- Currently, ISO collects fuel survey data monthly and increases frequency as needed.
- (Sections III.A, III.B, III.C) Summary of revised data collection:
  - During **Normal Conditions** ISO shall distribute an OP-21A to the Lead MPs of applicable resources:
    - Weekly, in the months of December through March
    - Bi-weekly, in the months of April through November
  - During **Energy Alert** or **Energy Emergency** Conditions ISO shall distribute an OP-21A to the Lead MPs of applicable resources daily.
  - ISO may increase the frequency and/or modify the survey data requirements if it finds emergent indications of potential energy deficiencies due to environmental limitations, low fuel inventory, fuel procurement or transportation issues, or any other conditions that could limit resource availability



# Overview of OP-21 Changes

## *Other revisions and clarifications*

- Revised Introduction & Objectives (Section I)
- Clarification of Reporting Requirements (Section I.D.)
- Cleanup of Energy Emergency Actions and Cancellation Criteria (Section III.C & III.D)



# Review of OP-21 and OP-21 Redlines

- The committee will now review the draft OP-21 and OP-21 redline documents



# Conclusion

- The ISO is proposing revisions to the current OP-21 and OP-21 to support the Energy Emergency forecasting and reporting process which will trigger defined Energy Alerts and Energy Emergencies in order to proactively communicate potential energy deficiencies to regional stakeholders.



# Stakeholder Schedule

Stakeholder Committee and Date	Scheduled Project Milestone
July 12, 2018 Reliability Committee	Initial presentation
August 1, 2018 Reliability Committee	Review of proposed OP-21 and OP-21A Revisions
September 26, 2018 Reliability Committee	VOTE
October 4, 2018 Participants Committee	VOTE

# Questions



# Acronyms Used in this Presentation

- FEEA1 = Forecast Energy Emergency Alert Level 1
- FEEA2 = Forecast Energy Emergency Alert Level 2
- FEEA3 = Forecast Energy Emergency Alert Level 3
- FMLCC2 = Forecast MLCC2
- MLCC2 = Master Local Control Center Procedure No. 2
- NERC = North American Electric Reliability Corp.
- OP= ISO-NE Operating Procedure

