Managing Transmission Line Ratings

Technical Rating Communication implementation workshop

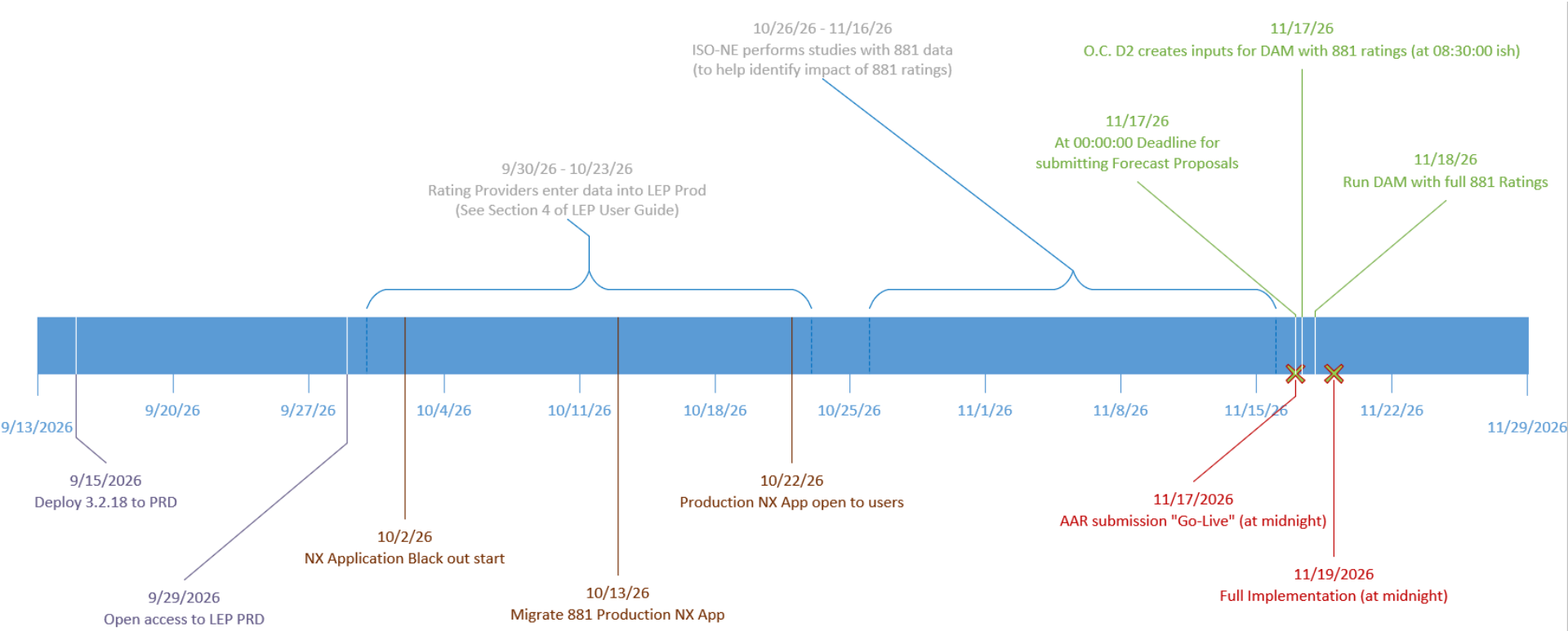
Various

VARIOUS

Schedule

Date	Event
9/8/2026	LEP Production roles available in CAMS (tentative date)
9/15/2026	September Model Release
9/29/2026	Open access to LEP Production (tentative date)
9/30/2026 – 10/23/2026	Rating Providers enter required data into LEP (Section 4.1 of LEP User Guide)
10/2/2026 – 10/21/2026	NX application unavailable during transition to FERC 881 format
10/22/2026	NX application available in FERC 881 format, no longer hosts seasonal ratings
10/2/2026 – 11/18/2026	Rating changes must be communicated via control rooms
11/17/2026	At midnight: Deadline for submitting AAR required to be submitted (at midnight)
11/18/2026	Day Ahead Market run uses all provided 881 ratings
11/19/2026	FERC 881 full implementation (at midnight)

Reminder: In September, ISO-NE will be providing the updated implementation timing information to FERC


10/26/26 - 11/16/26
ISO-NE performs studies with 881 data
(to help identify impact of 881 ratings)
11/17/26
O.C. D2 creates inputs for DAM with 881 ratings (at 08:30:00 ish)
11/17/26
At 00:00:00 Deadline for
submitting Forecast Proposals
11/18/26
Run DAM with full 881 Ratings
9/30/26 - 10/23/26
Rating Providers enter data into LEP Prod
(See Section 4 of LEP User Guide)
9/13/2026
9/20/26
9/27/26
10/4/26
10/11/26
10/18/26
10/25/26
11/1/26
11/8/26
11/15/26
11/22/26
11/29/2026
9/15/2026
Deploy 3.2.18 to PRD
9/29/2026
Open access to LEP PRD
10/2/26
NX Application Black out start
10/13/26
Migrate 881 Production NX App
10/22/26
Production NX App open to users
11/17/2026
AAR submission "Go-Live" (at midnight)
11/19/2026
Full Implementation (at midnight)

Extension by other entities

- Even if an entity is submitting an extension with FERC or gets an extension approved from FERC, that entity will still need to provide:
  1. Nominal Ratings for NX Application forms
  2. Enter both Reasonability Limits for each Network Segment into LEP
  3. Enter all Seasonal Ratings for each Network Segment into LEP
  4. Enter all Scenario Ratings for each Network Segment into LEP
  5. Setting AAR Exemption status and entering in a Reason for each Network Segments that will **not** have ambient adjusted ratings submitted to LEP
- All LEP items above (2 to 5) can be done via UI and/or API.

Models in LEP

- ISO-NE will deploy/model equipment with NX9 forms based on OP-16 requirements to LEP-Operational
  1. Equipment with an NX9 form **and** is associated with a branch in the ISO-NE EMS Network Model
     - This model comes from an export of the ISO-NE EMS ratings application
       - This is what ISO-NE has deployed to LEP Sandbox
  2. Equipment with an NX9 form that is **not** represented in the ISO-NE EMS Network Model
     - ISO-NE will add this equipment via LTS functionality. The name will start with "NX_ERN_". Example: NX_ERN_11420
       - This equipment is **NOT** represented in LEP Sandbox.
         - » Reason: The CIMMRID is created upon submission and would **not** be the same in the Production environment.
- Rating Provider modeling added via LTS functionality.
  - When adding equipment via LTS, do NOT use "NX_ERN_" in its name.

LEP Sandbox software update

- Target date:
  - Primary: Thursday 27 Aug 2026
  - Backup: Thursday 03 Sep 2026
- Defect fix applicable to Rating Providers:
  - Capable of submitting Forecast Proposals with a minimum of 72 hours and a maximum of 240 hours.
    - ISO-NE will only create Forecast Snapshots of effective ratings for 72 hours.

LEP Sandbox model update

- New EMS rating application model will be deployed with the software update.
- Changes:
  - Developed for the 3.2.18 network model
  - Contains direction specific ratings
  - EMS rating application model done via Source (modeling software) so the CIMMRIDs are all updated to be based this modeling software

OATI webLineR

- OATI webLineR features the Ratings Exchange Module (REM) that supports all existing (i.e., known to OATI) rating data formats and allows OATI customers to select the external ratings API from a dropdown list.
  - REM currently supports the TROLIE API (all LEP variants)
  - Would need a unique identifier to support the setup, ISO-NE recommends using the CIMMRID

Alias to use for Resource ID

- ISO-NE recommends using CIMMRID as the resource ID. It exists for all model types:
  - ISO-NE created model from EMS ratings application
    - This is the model that is in LEP Sandbox.
  - ISO-NE created modeling for equipment with NX9 forms, but is not in the EMS ratings application
  - Local Transmission Service
- The following Alias field names are only available in the ISO-NE created model from EMS ratings application:
  - NX_ERN, ISOEquipID, ParticipantEquipID, EMSName, ELSC_MRID, SEDL_MRID, DYNRTGName1, DYNRTGName2

API and value specifics

- Submission of a Real Time Proposal is **not** required and will be blocked.
  - If an in-hour rating change is required, it would be provided as a Temporary Rating.
- Do not submit values past the tenth place.
  - ISO-NE EMS only uses ratings to the tenth place.
  - Do not want to create any issues with differences due to rounding or truncation.
- Forecast Proposals must be submitted prior to xx:45 each hour.

Inputs to ISO-NE EMS ratings applications

- Real-Time ratings application
  - Over ICCP into ISO-NE SCADA: Equipment with DLR sensors installed
  - Time-based ratings from LEP:
    - Temporary Ratings for the current time
    - Forecast ratings for the current hour from the previous Forecast Proposal submission
      - equipment applicable to AAR requirements will have Forecast Proposals submitted
  - Seasonal Ratings (default and conditional)
    - Expectation is that all Network Segments will have Seasonal Ratings entered by the Rating Provider.
  - Nominal Ratings
- Future hour ratings application
  - Time-based ratings from LEP:
    - Temporary Ratings for the applicable hour starting at HH00:00
    - Forecast Proposals for the next 72 hours
  - Seasonal Ratings (default and conditional)
  - Nominal Ratings

Rating Hierarchy / Rating Priority

- EMS Rating software evaluates ratings at the Network Segment level starting with the 1st option below and stops evaluating once it has identified a usable rating set.
  - ISO-NE Manual Override
  - Ratings via ICCP – Only used in Real Time rating application
  - Time Based Ratings from LEP:
    - Order for use in real time file from LEP: Temporary Ratings or previously submitted Forecast Proposal for the current hour
    - Order for use in forecast file from LEP: Temporary Ratings or Forecast Proposal
  - Seasonal Ratings (Default or Conditional) for the applicable season
  - Nominal Ratings

LEP FAILURE SCENARIOS

LEP failure scenarios

- Scenarios:
  - ISO-NE LEP unavailable to all entities
  - ISO-NE EMS cannot access LEP
  - One LCC cannot access LEP
  - One Rating Provider cannot access LEP
- Going to identify how the ISO-NE software is expected to respond based on the software we have implemented
  - Focus is on ISO-NE software response.

ISO-NE LEP unavailable to all entities

- All Ratings Providers cannot update ratings
- ISO-NE software response:
  - Real-time ratings application uses Time Based Ratings from last LEP file and Rating Hierarchy/Priority
    - Last LEP file data is held until end of hour
    - Updated real time Effective Ratings would **not** be written to LEP
  - Forecast ratings application uses Time Based Ratings from last LEP file and Rating Hierarchy/Priority
    - Last LEP file data is held for 72 hours
    - Updated future hour Effective Ratings would **not** be written to LEP
  - Study applications would have access to the previously provided files from LEP and use Rating Hierarchy/Priority based on time of study
- If there is a thermal exceedance, ISO-LCC discussion to confer on ratings to be used

ISO-NE cannot access LEP

- All Ratings Providers updates ratings
- ISO-NE software response:
  - Real-time ratings application uses Time Based Ratings from last LEP file and Rating Hierarchy/Priority
    - Last LEP file data is held until end of hour
    - Updated real time Effective Ratings would **not** be written to LEP
  - Forecast ratings application uses Time Based Ratings from last LEP file and Rating Hierarchy/Priority
    - Last LEP file data is held for 72 hours
    - Updated future hour Effective Ratings would **not** be written to LEP
  - Study applications would have access to the previously provided files from LEP and use Rating Hierarchy/Priority based on time of study
- If there is a thermal exceedance, ISO-LCC discussion to confer on ratings to be used

One LCC cannot access LEP

- Ratings Provider updates ratings as normal
- ISO-NE software response:
  - Real-time ratings application uses Time Based Ratings from LEP and Rating Hierarchy/Priority
    - Can force segments to revert to seasonal either individually or by Rating Provider, NOT by LCC.
  - Forecast ratings application uses Time Based Ratings from LEP and Rating Hierarchy/ Priority
    - If Segments were forced to seasonal in Real Time software, that priority would be used in Forecast Application
  - Study applications would use Time Based Ratings and Rating Hierarchy/ Priority based on the Time of study
- If there is a thermal exceedance, ISO-LCC discussion to confer on ratings to be used

Rating Provider cannot access LEP

- That Rating Provider cannot update ratings
  - LEP will have the previous Forecast Proposal submission
  - Hours that are missing, will be NULL
- ISO-NE software response:
  - Real-time ratings application uses Time Based Ratings from LEP and Rating Hierarchy/ Priority
    - If the access issue persists long enough to encounter NULLs, reverts based on Rating Hierarchy/ Priority
  - Forecast ratings application Time Based Ratings from LEP and Rating Hierarchy/ Priority
    - It will reverts based on Rating Hierarchy/ Priority for hours with NULL
  - Study applications would use Time Based Ratings and Rating Hierarchy/ Priority based on the Time of study
- If there is a thermal exceedance, ISO-LCC discussion to confer on ratings to be used

Questions