Conditions to Enter

A quality status is populated and the information is inaccurate; Or
The expected load change in UDS or RTUC does **NOT** match current actual load pickup conditions.

References

[None]

Procedure Background

Short-Term Load Forecast (STLF) automatically runs every five minutes.

STLF gets the real time load from SCADA every 4 seconds; the accumulated values are shown on the "Fast Data" tab. The accumulated values are averaged and used in the calculation to determine the five-minute load value that is populated in the Actual Value well.

STLF is set up for a load profile selection. That selection is as follows:

- ❑ Monday will choose last Thursday's actual load as its load profile
- ❑ Tuesday through Friday will always choose previous day's actual load as its load profile.
- ❑ Saturday will choose last Sunday's actual load as its load profile
- ❑ Sunday will choose Saturday's actual load as its load profile.

STLF is configured to forecast 4 hours of data; 48 five minute intervals of forecasted load. All 48 five-minute intervals are calculated using the Similar Day with Dynamic Scaling method.

Information presented on the STLF display Forecast tab:

- ❑ Date of information being presented
- ❑ Icon to move back to the previous day
- ❑ Icon to move forward to the next day
- ❑ Current value text: click this text to position the display to the current forecast interval denoted by the red triangle.
- ❑ Rerun STLF button: click this button to immediately run the short-term load forecast instead of waiting for the next scheduled forecast to run.
- ❑ COPY Forecast button: click this button to copy the Override values in the Forecast column for the current day from the ISONE_EX forecast area into the ISONE forecast area.
- ❑ NOTE: the ISONE_EX Override values for the next day will not be populated until the 0700 SCRA case is approved.
- ❑ CLEAR Override button: click this button to clear ALL overrides that have been entered in the Forecast column for the current time and all future times within the ISONE forecast area. This will NOT remove any override values in the past. This will NOT remove Overrides entered in the Actual column
- ❑ Forecast Areas: click an area name hyperlink to position to the forecast for a particular area.
  - ISONE area is populated with the ISONE FCAS model information. ISONE forecast area provides the forecast and actual information for the ISO-NE system that is used by dispatch software and Market information.
  - ISONE_EX is the load forecast results come from Day Ahead Load Forecast, the results are bridged into EMS for display only in the Value column. Subsequent load profile changes for an SCRA cases will update the Override column. The chart should be matched with ISO Express Load Forecast curve. This was implemented in case the company office network crashed, the control room still can view the ISO Express load curve.
- ❑ Forecast column:
  - Value: The most recently forecasted load value. This value is overwritten each time STLF runs until the actual time interval (or protected time interval) is reached. This is never editable by the operator.
  - Forecast Quality: The quality of the forecast value. The default (blank) indicates a GOOD status. Other possibilities are BAD-SPK (bad due to a spike), SUS-SPK (suspect due to a spike), SPKFCST, BAD, and SUSPECT.
  - Override: Manually entered value for the forecast. Supersedes the forecasted load value.
  - NOTE: entering an override for the Forecast value will be transferred to downstream applications (it will help correct errors in dispatch software).

- ❑ Actual column:
  - Value: Actual averaged load for the time interval. Calculated from fast sample data acquired from SCADA. These values are recorded and shown on the "Fast Data" tab in STLF.
  - Actual Quality: The quality of the averaged actual data value. The default (blank) indicates a GOOD status. Other possibilities are SUSPECT, BAD, and REPLACED.
  - Override: Manually entered load for a time interval. This overrides the actual load.

Common Procedure Information

A. Any ISO-NE qualified Control Room Operator has the authority to take actions required to comply with NERC Reliability Standards. A qualified ISO-NE Control Room Operator has met the following requirements:
   1. Have and maintain a NERC certification at the RC level (per R.1 of PER-003-2)
   2. Applicable Requirements of PER-005-2
   3. Approved to cover a Control Room Operator shift position by the Manager, Control Room Operations
   4. Is proficient at the current qualified level.

B. Real time operation is defined as the current hour and the current hour plus one.

C. Future hours are those beyond real time operation.

D. All verbal communications with Local Control Centers (LCC), neighboring Reliability Coordinators/Balancing Authorities (RC/BA), Designated Entities (DE), Demand Designated Entities (DDE) and/or SCADA centers shall be made on recorded phone lines unless otherwise noted.

E. For all communications:
   1. Use the Basic Protocol for All Operational Communications as prescribed in M/LCC 13.
   2. Use 'ISO New England' or 'New England'. Refrain from using 'ISO'.
   3. Use Asset ID's when communicating with DE/DDEs.
   4. Use three-part communication in all situations where its use will enhance communications.

F. Primary responsibilities are stated for each step within the procedure, but any ISO Control Room Operator qualified at that position or higher can perform the step. The Primary Responsibility may be delegated to an Operator in a lower qualified position, but the responsibility for its completion remains with the identified individual.

G. The use of “ensure” within this document means that a verification has been performed and if the item is not correct, corrective actions will be performed.

Step 1 Primary Responsibility: Loader Operator

Inform the Senior System Operator and Operations Shift Supervisor of the issue in STLF.

Step 2 Primary Responsibility: Loader Operator

Condition(s) to perform this step:

- **Determined an STLF Similar Day Chart will correct the issue.**

Select an STLF Similar Day Chart in STLF.

Step 2.1 Primary Responsibility: Loader Operator

Access the STLF Similar Day Chart

Instructions

Perform the following to access STLF Similar Day Chart:

- ❑ Select "STLF" from the OTR dropdown menu;
- ❑ Click "Analyst Displays" in the menu;
- ❑ Click "Short-Term LF";
- ❑ Click "STLF Similar Day Chart

Notes

The Automatic Similar Day has two available modes. Disable and Evaluate. The functionality of "Evaluate" is currently unknown by IT and should **NOT** be selected.

Step 2.2 Primary Responsibility: Loader Operator

Select the desired Similar Day Processing Mode.

Notes

Similar Day processing has four available modes:

- Use auto-selected date (Functionality not known by IT and should not be selected)
- Use similar day table (Normal Setting)
- Use same day of the week.
- Use previous day

Step 2.3 Primary Responsibility: Loader Operator

Select the desired STLF Forecasting method.

Notes

STLF has three available Forecasting methods:

- **"Use Neural Net"**: Uses current Override as a starting point and modifies the future load forecast with the Neural Net process. (Commonly used option)
- **"Use Similar Day"**: Uses the current Override with no future adjustments from the Neural Net process
- **"Interpolate from MTLF":** Uses current Override and interpolates future load forecast from the current MTLF

Step 2.4 Primary Responsibility: Loader Operator

Select the desired date from the STLF History dropdown menu from the "Historical Traces" field.

Notes

The previous 31 days are available for selection

Step 2.5 Primary Responsibility: Loader Operator

Click the "Set" button to set the selected date from the "Historical Traces" field.

Notes

Three Historical Traces can be set at one time. When the "Set" button is clicked the date will appear in the well for the corresponding trace (#1, #2, or #3). Setting the trace also plots the date for reference. If all three traces are currently set you can select another date and "Set" over the selected trace or click the "Clear" button to remove the set trace.

Step 2.6 Primary Responsibility: Loader Operator

Condition(s) to perform this step:

- **Determined additional dates need to be evaluated for remaining Historical Traces.**

Repeat Step 2.4 and 2.5 for each historical trace selected.

Step 2.7 Primary Responsibility: Loader Operator

Determine which historical trace will be used for the STLF.

Step 2.8 Primary Responsibility: Loader Operator

Condition(s) to perform this step:

- **An Override value is present in the STLF.**

Press the "Clear Override" button.

Step 2.9 Primary Responsibility: Loader Operator

Click the "Override" button for the desired historical trace #1, #2 or #3.

Step 2.10 Primary Responsibility: Loader Operator

Click the "Rerun STLF" button.

Notes

Once STLF has completed running it could take up to one minute for the change(s) to be written to the MDB and usable by the dispatch software. Clicking the Rerun STLF button during a periodic STLF automatic run (5 min intervals) has the potential of causing the STLF to fail due to a processing problem. A failure may be identified by Suspect message or blank Actual/Forecasted values.

Step 3 Primary Responsibility: Loader Operator

Condition(s) to perform this step:

- **Determined a manually entered Override value in STLF will correct the issue.**

Manually enter an Actual or Forecast Override value for a time interval in STLF.

Step 3.1 Primary Responsibility: Loader Operator

Enter an override in the applicable time interval(s) in the Actual or Forecast column in STLF.

Instructions

- ❑ An incorrect Actual Value within the last 30 five minute intervals will impact the model used to forecast the intervals in STLF.
  - Can be corrected by entering an Override Value for the Actual Value time intervals in STLF that have incorrect data.
- ❑ An incorrect Actual Value (that was NOT corrected) on the previous load profile selection day will impact the model used to forecast the intervals in STLF.
  - Can be corrected by entering an Override Value for the Forecasted time intervals in STLF that appear to be incorrect.

Notes

Override values entered in the Actual column cannot be removed.

Step 4 Primary Responsibility Loader Operator

Condition(s) to perform this step:

- **Determined the Override values from the ISONE_EX forecast area need to be copied.**

Copy the Override values from ISONE_EX.

Step 4.1 Primary Responsibility: Loader Operator

Click the "COPY Forecast" button.

Notes

This will copy the current time and future Override values for today from the ISONE_EX forecast area to the ISONE forecast area.

Step 5 Primary Responsibility Loader Operator

Condition(s) to perform this step:

- **Determined the STLF Graphical Editor (STLFGE) will be used to update the STLF.**

Use the STLF Graphical Editor tool.

Step 5.1 Primary Responsibility: Loader Operator

Click the "STLFGE" button.

Step 5.2 Primary Responsibility: Loader Operator

Make the desired adjustments in the STLF Graphical Editor.

Instructions

To Override the STLF values:

- ❑ From the "Initialize Ovrd Draft:" field select "STLF" or "Published LF".
- ❑ Perform either of the following:
  - ❑ Manually entering or adjusting values in the "Ovrd Draft" column; Or
  - ❑ Selecting a timeframe within the chart and dragging portions of the curve to achieve the desired shape
  - ❑ Click the "Confirm to Override" button to accept the changes

To make adjustments to a Sim Day:

- ❑ Select a load curve from the "Historical Trace" dropdown menu
- ❑ Perform either of the following:
  - ❑ Adjusting values in the Simday column; Or
  - ❑ Selecting a timeframe within the chart and dragging portions of the curve to achieve the desired shape
  - ❑ Click the "Similar Day Override" Button to accept the changes

To manually input values in the "Ovrd Draft" column:

- ❑ Type value(s) into the applicable "Ovrd Draft" wells
- ❑ From the "Curve Fit" field select either "Linear, Quadratic or Cubic Regression"
- ❑ Click the "Confirm to Override" button to accept the changes

Notes

Demonstration videos are available on the Control Room SharePoint via the Training Materials folder that provides information on how to use the options available in the STLF Graphical Editor.

Step 5.3 Primary Responsibility: Loader Operator

Condition(s) to perform this step:

- **If not previously done; And**
- **Changes have been made in the Graphical Editor and are ready to be published to the STLF.**

Click the "Confirm to Override" button in the STLF Graphical Editor.

Step 6 Primary Responsibility: Loader Operator

Condition(s) to perform this step:

- **Determined the current and ALL future Override values in the Forecast column need to be removed.**

Clearing Override values in the Forecast column.

Notes

These actions will clear the current and future Override values in the Forecast column in the ISONE forecast area. This cannot be used to clear out a single value. If the STLF Similar Day Chart is being used, Step 6 should be performed.

Step 6.1 Primary Responsibility: Loader Operator

Click the "CLEAR Override" button.

Notes

This will clear the current and future Override values for today from the ISONE forecast area

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Step 7 Primary Responsibility: Loader Operator

Condition(s) to perform this step:

- **Determined an STLF Similar Day Chart Override needs to be removed.**

Clearing an STLF Similar Day Chart Override.

Notes

When using an STLF Similar Day Chart Override, if not previously cleared by the operator it will automatically be removed at 00:00 the following operating day.

Step 7.1 Primary Responsibility: Loader Operator

Access the STLF Similar Day Chart.

Instructions

Perform the following to access STLF Similar Day Chart:

- ❑ Select “STLF” from the OTR dropdown menu;
- ❑ Click "Analyst Displays" in the menu;
- ❑ Click "Short-Term LF";
- ❑ Click "STLF Similar Day Chart

Step 7.2 Primary Responsibility: Loader Operator

Click the “Clear Override” button from the “Similar Day Processing” field.

Step 7.3 Primary Responsibility: Loader Operator

Click the "Rerun STLF" button.

Notes

Once STLF has completed running it could take up to one minute for the change(s) to be written to the MDB and usable by the dispatch software.

Revision History

Rev. No.	Date (MM/DD/YY)	Reason	Contact
0	02/20/13	Initial revision of this Procedure	Steven Gould
1	02/03/15	Biennial Review	Steven Gould
2	04/11/16	Update procedure background and steps for clarification	Steven Gould
3	06/14/17	Removed override of Forecast values in Steps and updated the procedure background to indicate the Forecast override does get used by downstream applications	Steven Gould
4	06/23/17	Complete rewrite based on change within EMS	Steven Gould
5	12/18/17	Remove information associated with MTLF	Steven Gould
6	01/23/18	Complete rewrite based on change within EMS	Steven Gould
7	01/11/19	Added section to override STLF with a previous date	Steven Gould
8	03/10/20	Updated background	Steven Gould
9	09/22/20	Corrected direction in Step 3.3, corrected formatting	Steven Gould
10	10/22/20	Removed references and instruction pertaining to ISONE_DR. Tool no longer necessary.	Steven Gould
11	05/21/21	Updated for EMS 3.2 release, Similar Day functionality change with software update	Steven Gould
12	08/02/21	Updated the Note in Step 2.4 and Common Procedure Information, corrected referenced step numbers in Step 2.6, added instruction to Step 2.1 and 6.1.	Steven Gould
13	03/16/23	Added Step 2.8; Added Step 5 with substeps and Instructions with STLFGE implementation; Deleted Steps 2.11, 3.2, 4.2	Jonathan Gravelin