

| Effective Date | December 15, 2021 |
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| Impacted Manual #(s)/Manual Title(s): | |
| M-14-D: Generator Operational Requirements, Revision 58 | |
| Conforming Order(s): | |
| None | |
| Associated Issue Tracking Title: | N/A |
| Committee Approval Path - What committee(s) have already seen these changes? | |
| Planned committee reviews/endorsements: | |
| SOS: October 4, 2021, November 1, 2021 | |
| RSCS and TTMS: October 15, 2021 | |
| OC: October 7, 2021, November 4, 2021 (Endorsement) | |
| MRC: November 17, 2021, December 15, 2021 (Endorsement) | |
| MRC 1st read date: | November 17, 2021 |
| MRC voting date: | December 15, 2021 |
| Impacted Manual sections: | |
| See detailed list below | |

Reason for change:

Periodic cover-to-cover review

Section 1.2 Generator Commercial Naming Convention

Clarified and provided additional guidance on acceptable Generating Facility naming

Section 2.3 Generator Market Remodel

• Added new section under the Responsibilities of Generation Owners section to detail the generator market remodel process.

Section 2.4 eDART Modeling

 Added new section under the Responsibilities of Generation Owners section to describe eDART modeling requirements previously covered in section 5.3.4 eDART.

Section 3.3 Voice Communication Requirements for Generating Entities

Removed references to ring-down phone lines to generating entities

Section 5.3.3 PJM eRPM

Renamed to PJM Capacity Exchange and removed references to eRPM

Section 5.3.4 eDART



 Removed the last two paragraphs from this section and moved it to the new section 2.4 eDART Modeling.

Section 5.4.4 Grid Accounting

Replaced references to eRPM with Capacity Exchange

Section 5.7.2.7 eRPM account

Renamed to Capacity Exchange account

Section 6.3.4, Other Requirements

 Added requirements for Generating Facilities to provide cold weather operating data prior to entering commercial operations and following material changes to the facility.

Section 5.7.3 Process Timeline

• Corrected the duration of attaining PJM membership after all required paperwork has been signed and received by PJM from 60 to 90 days.

Section 7.3.1 Planned Outage

Clarified that eDART tool is used for submitting Planned Outages

Section 7.3.2 Maintenance Outage

Clarified applicability to all generation resources

Section 7.3.5 Fuel and Emissions Reporting

- Renamed to Fuel, Emissions and Operational Data Reporting
- Clarified requirements and necessity for responding to data requests
- Renamed section to Operational Data Reporting

Section 7.3.6 Generation Owner Periodic Tasks and Data Submittals

 Added new section with guidelines to assist Generation Owners tracking periodic tasks, testing and data submittals.

Section 8.2.1 Data Requirements for Wind Forecast Set Up

Clarified language, including title of section, to indicate that data is required for forecasting when there is
a change to a wind farm in addition to when a wind farm first comes online

Section 8.2.3 Real Time Meteorological Tower (or mutually agreed upon alternative source)

Modified format of temperature unit in table to be consistent with other parameters

Section 8.2.6 Wind Power Forecast

 Modified names and descriptions of types of forecasts to reflect the manner in which PJM currently uses forecast products

Section 8.3 Forecast Data Usage

Aligned names and descriptions of types of forecasts with changes made in 8.2.6

Section 9.1.1 Generator Deactivation Request

- Renamed to Generator Deactivation Notice
- Updated Black Start resource termination requirements to reflect current Tariff requirements



Updated language to be consistent with current business practice

Section 9.1.2 Initial Analysis

- Renamed to Deactivation Analysis
- Updated language to be consistent with current business practice

Section 9.1.3 Analysis Results

- Updated language to be consistent with current business practice and to reflect current Tariff requirements
- Updated Black Start resource termination revenue impacts to reflect current Tariff requirements

Section 12.2.1 Data Requirements for Solar Forecast Set Up

- Clarified language, including title of section, to indicate that data is required for forecasting when there is a change to a solar park in addition to when a solar park first comes online
- Added language stating that solar parks with multiple components (e.g. multiple panel models) need to provide data for each component
- Modified list to separate Maximum Facility Output (MW) from AC installed capacity of each component (MW)

Section 12.2.2 Real Time Output

- Added clarifying language regarding criteria that require real-time output telemetry
- Clarified requirements for hybrids and collocated resources to apply to all combinations of solar and other resources in addition to solar and storage resources

Section 12.2.3 Real Time Meteorological Tower (or mutually agreed upon alternative source)

- Clarified that type of real-time irradiance data required is Plane of Array (POA) irradiance
- Modified format of temperature unit in table to be consistent with other parameters

Section 12.2.5 Solar Power Forecast

 Modified names and descriptions of types of forecasts to reflect the manner in which PJM currently uses forecast products

Section 12.3 Forecast Data Usage

Aligned names and descriptions of types of forecasts with changes made in 12.2.5

Attachment N: Cold Weather Preparation Guideline and Checklist

- Update existing links and added links to additional industry guidance for generation resource cold weather preparation
- Added recommendation to create "Emergency Freeze Protection Kits" at various plant locations