

# Manual 14-D Generator Operational Requirements Revision 58

Darrell Frogg Lead Engineer, Generation System Operation Subcommittee November 1, 2021



**Changes Since First Read** 

- Section 6.3.4 Other Requirements
  - Added requirements for Generating Facilities to provide cold weather operating data prior to entering commercial operations and also following material modification affecting operating limits
- Section 9.1.1 Generator Deactivation Request
  - Removed language related to cost recovery for deactivating a Blast Start Unit and instead added reference to Manual 12, Balancing Operations, Section 4.6.9, Generator Owner's Commitment



#### M-14D Substantive Changes

- 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



#### M-14D Substantive Changes

- Section 6.3.4 Other Requirements
  - Added requirements for Generating Facilities to provide cold weather operating data prior to entering commercial operations and also following material modification affecting operating limits
- Section 7.3.6 Generation Owner Periodic Tasks and Data Submittals
  - Added new section and companion document with guidelines to assist Generation Owners tracking periodic tasks, testing and data submittals



- Section 1.2 Generator Commercial Naming Convention
  - Clarified and provided additional guidance on acceptable Generating Facility naming
- 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 PJM data requests
- Section 9.1 Generator Deactivation Process changes to multiple sections
  - 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 Generator Deactivation Process changes to multiple sections
  - 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 8 Wind Farm Requirements changes to multiple sections
  - 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 <u>when there is a change to a wind farm</u> 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 Wind Farm Requirements changes to multiple sections
  - Section 8.3 Forecast Data Usage
    - Aligned names and descriptions of types of forecasts with changes made in 8.2.6



- Section 12 Solar Park Requirements changes to multiple sections
  - 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 <u>when there is a change to a solar park</u> 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 Solar Park Requirements changes to multiple sections
  - 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 Solar Park Requirements changes to multiple sections
  - 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 Solar Park Requirements changes to multiple sections
  - 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

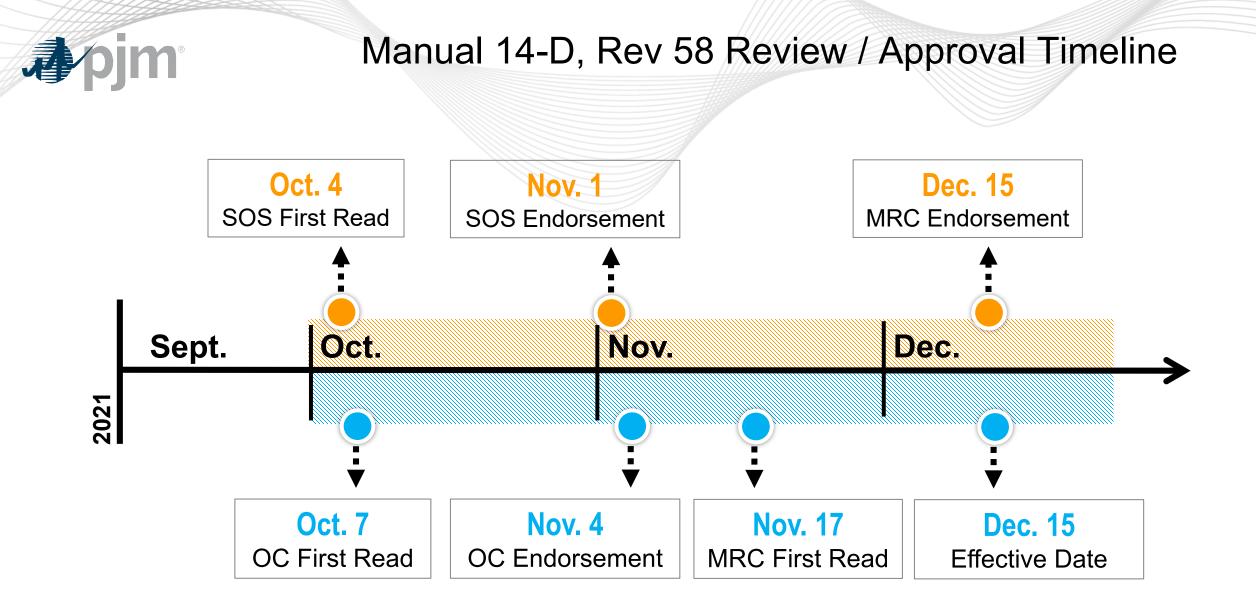


- Section 3.3 Voice Communication Requirements for Generating Entities
  - Removed references to ring-down phone lines to generating entities
- Section 5.3.3 PJM eRPM
  - Renamed to PJM Capacity Exchange and removed references to eRPM
- Section 5.4.4 Grid Accounting
  - Replaced references to eRPM with Capacity Exchange
- Section 5.7.2.7 eRPM account
  - Renamed to Capacity Exchange account



M-14D Administrative Changes

- Section 5.7.3 (Generation Transfer) 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.







Presenter: Darrell Frogg, Darrell.Frogg@pjm.com

SME: Vince Stefanowicz, Vincent.Stefanowicz@pjm.com

Manual 14-D, Generator Operational Requirements Periodic cover to cover review Member Hotline (610) 666 – 8980 (866) 400 – 8980 custsvc@pjm.com