



Phase 2: Conforming Manual Updates for ER24-99

Skyler Marzewski
Market Design
Market Implementation Committee
February 5, 2025

Aligned language between 8.5A and 9.1.5A for applicable daily RPM committed UCAP MW.

8.5A Generation Operational Testing

Effective with the 2025/2026 Delivery Year, Generation Capacity Resources, with the exception of Variable Resources, that are committed to RPM or FRR shall be subject to operational testing initiated by the Office of the Interconnection up to two times in each of the summer and winter seasons during the relevant Delivery Year. The operational testing requirements, retest requirements, and determination of when a shortfall is assessed are found in **Generator Operational Requirements Manual (M14D)**.

When a unit fails a retest of the Generation Operational Test, a Generation Operational Test Failure Charge may be assessed. The Generation Operational Test Failure Charge shall equal the Daily Deficiency Rate multiplied by the applicable daily committed UCAP MW of such Generation Capacity Resource.

The applicable daily committed UCAP MW value subject to the Generation Operational Test Failure Charge will account for:

- any RPM and FRR commitments on the unit;
- any unit modeling differences that may exist between the energy market and capacity market; and
- any portions of the unit that were committed by multiple Capacity Market Sellers, provided, however, a Capacity Market Seller shall not be assessed a Generation Operational Test Failure Charge to the extent (i.e., for the same megawatts and time period) that such seller is assessed a Capacity Resource Deficiency Charge for such resource.

The Daily Deficiency Rate shall equal the value defined in section 9.1.5A

9.1.5A Generation Operational Test Failure Charge

The Generation Operational Test Failure Charge is applicable to all generation resources (with the exception of Variable Resources) committed to RPM or FRR that fail the Generation Operational retest in accordance with Manual 14D.

The Daily Generation Operational Test Failure Charge applicable to RPM commitments shall be equal to the Daily Deficiency Rate times (the applicable daily RPM committed UCAP MW of that Generation Resource minus any Daily RPM Commitment Shortage being assessed).

$$RPM \text{ Daily Generation Operational Test Failure Charge} = DDR \times (\text{Applicable Daily RPM Committed UCAP MW} - \text{DailyRPMCommitmentShortage})$$

Updated

9.1.5A Generation Operational Test Failure Charge

The Generation Operational Test Failure Charge is applicable to all generation resources (with the exception of Variable Resources) committed to RPM or FRR that fail the Generation Operational retest in accordance with Manual 14D.

The Daily Generation Operational Test Failure Charge applicable to RPM commitments shall be equal to the Daily Deficiency Rate times the applicable daily RPM committed UCAP MW of that Generation Resource.

$$RPM \text{ Daily Generation Operational Test Failure Charge} = DDR \times \text{Applicable Daily RPM Committed UCAP MW}$$

Phase 2 of the conforming Manual updates, due to the CIFP-RA filing (ER24-99), are grouped into three topics, and affect four PJM Manuals

Summer/Winter Capability Testing	Generation Operational Testing	Dual Fuel Attestation Energy Offer Requirement
Manual 18	Manual 14D Manual 18 Manual 28	Manual 11



Overview of Changes Associated with PJM's CIFP Filing

Topic	Manual	Tariff and Filing Discussion	Overview
Summer/Winter Capability Testing	M-18	OATT Attachment DD § 7	<ul style="list-style-type: none">• Clarifications for daily ICAP commitment level• Determination of UCAP Shortfall• Generation Resource Rating Test Failure Charges• Allocation of deficiency and penalty charges
Generation Operational Testing	M-14D M-18 M-28	OATT Attachment DD § 7A	<ul style="list-style-type: none">• How PJM will initiate a Generation Operational Test• Calculation of Generator performance during the test• How the resource will be reimbursed or penalized
Dual Fuel Attestation Requirements	M-11	ER24-99-001 Deficiency Response C.4.a	<ul style="list-style-type: none">• Requirement to offer both fuel sources into the energy market

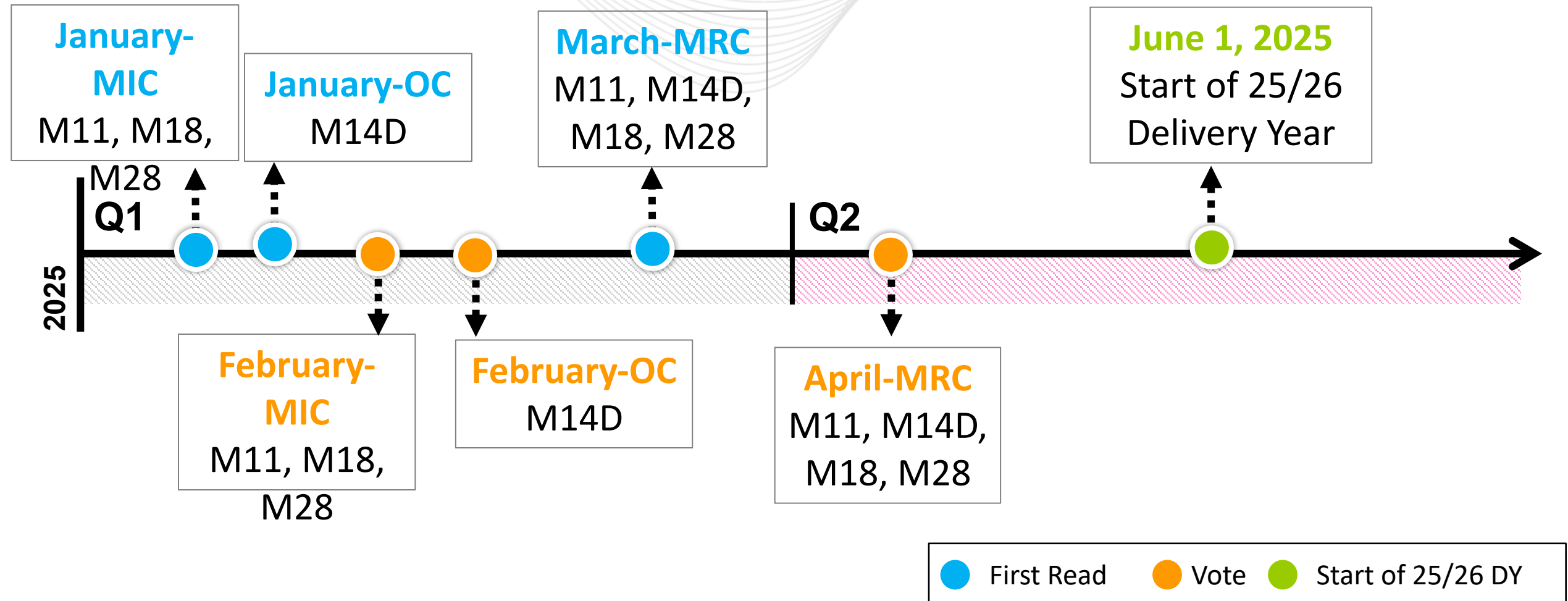
Summary of Changes	Tariff and Filing Discussion	Relevant PJM Manual Sections
<p>Clean up for table of relevant assessments by resource type</p> <p>Current calculation for commitment level, Unit ICAP shortfall, and Generation Resource Rating Test Failure Charge sunset with the 2024/2025 Delivery Year</p> <p>Updated references to include M-21B</p> <p>Updated total daily ICAP commitment level is determined each day effective with the 2025/2026 Delivery Year</p> <p>Effective with 25/26, Generation Resource Rating Test Failure Charge is the DDR x Provider's Daily ICAP Shortfall converted to UCAP terms using resource's final Accredited UCAP Factor for the Delivery Year</p>	<p>OATT Attachment DD § 7</p>	<ul style="list-style-type: none"> • M-18 8.1 – Overview of Resource Performance Assessments • M-18 8.3 – Commitment Level Used in Summer/Winter Capability Tests (through the 2024/2025 Delivery Year) • M-18 8.5 – Summer/Winter Capability Testing • M-18 8.5.1 – Determination of Unit ICAP Shortfall (through the 2024/2025 Delivery Year) • M-18 8.5.2 – Determination of Unit ICAP Shortfall (Effective with the 2025/2026 Delivery Year) • M-18 9.1.5 – Generation Resource Rating Test Failure Charge



Generation Operational Testing

Summary of Changes	Tariff and Filing Discussion	Relevant PJM Manual Sections
<p>Test applies to Generation Capacity Resources, with the exception of Variable Resources</p> <p>Applicable daily committed UCAP MW considers RPM/FRR commitments, differences between energy and capacity market modeling, and multiple owners</p> <p>RPM Daily Generation Operational Test Failure Charge is equal to $DDR \times (\text{Applicable Daily Committed UCAP} - \text{Daily RPM Commitment Shortage})$</p> <p>FRR Daily Generation Operational Test Failure Charge is equal to $DDR \times \text{Applicable Daily FRR Committed UCAP MW}$</p> <p>Generation Capacity Resources are eligible for Operating Reserves for each initial test but are ineligible for a retest following a failed initial test</p>	<p>OATT Attachment DD § 7A</p>	<ul style="list-style-type: none">• M-18 8.5A – Generation Operational Testing• M-18 9.1.5A – Generation Operational Test Failure Charge• M-28 5.2 – Credit for Operating Reserve• M-28 5.2.1 – Credit for Pool-Scheduled Generating Resources
<p>Summer testing season is defined as May through October, and winter testing season is defined as November through April</p> <p>PJM may select any committed Generation Capacity Resource, without the requirement to test all committed resources</p> <p>Generation Operational Tests are unannounced tests, in which PJM will utilize the offer parameters in the selected schedule to evaluate performance</p> <p>The time from resource commitment to unit breaker close must be less than or equal to the (Notification Time plus Start Up Time) plus the greater of 10 minutes or 10% of the Time to Start, and the resource must operate for at least the Minimum Run Time to pass the Generation Operational Test</p> <p>Resources that fail the initial test may be subject to a re-test at PJM’s discretion, with the same evaluation criteria</p> <p>Generation Operational Test Failure Charge will be assessed daily starting with a failed retest and stop once the resource successfully starts and synchronizes to the grid</p>	<p>M14-D follows the OC and not part of the MIC endorsement process</p>	<ul style="list-style-type: none">• M-14D 7.6 – Generation Operational Testing• M-14D 7.6.1 – Resource Selection for Testing• M-14D 7.6.2 – Test Notification• M-14D 7.6.3 – Test Evaluation Criteria• M-14D 7.6.4 – Re-test Process

Change	Tariff and Filing Discussion	Relevant PJM Manual Sections
Capacity Market Sellers that have provided an attestation of dual fuel capability during the winter season for their resources in the Gas Combustion Turbine Dual Fuel Class or Gas Combined Cycle Dual Fuel Class shall meet the must offer requirement by having an available schedule for the primary fuel and an available schedule for the alternative fuel for scheduling by PJM on such alternative fuel during the winter season. When the resource is not capable of operating on such alternative fuel during the winter season, the resource shall follow the requirements in M10, Section 2: Generation Outage Reporting.	ER24-99-001 Deficiency Response C.4.a	<ul style="list-style-type: none">• M-11 2.3.3.1 – Capacity Resource Offer Rules



Chair:

Foluso Afelumo,
Foluso.Afelumo@pjm.com

Secretary:

Stefan Starkov,
Stefan.Starkov@pjm.com

SME/Presenter:

Skyler Marzewski,
Skyler.Marzewski@pjm.com

Phase 2: Conforming Manual Updates for ER24-99



Member Hotline

(610) 666 – 8980

(866) 400 – 8980

custsvc@pjm.com

**PROTECT THE
POWER GRID
THINK BEFORE
YOU CLICK!**



Be alert to
malicious
phishing emails.

Report suspicious email activity to PJM.
(610) 666-2244 / it_ops_ctr_shift@pjm.com

