

Regulation Redesign Phase 1 – Frequently Asked Questions (FAQ)

Revised: April 4, 2025

Q1 When is the Regulation Redesign Phase 1 going live?

A1 As filed and approved by FERC, Regulation Redesign Phase 1 is scheduled to go live on Oct. 1, 2025.

Q2 When is the RegUp and RegDn implementation?

A2 The RegUp and RegDn implementation is in the Phase 2 of the Regulation Redesign, and as filed and approved by FERC, it will go-live on Oct. 1, 2026. PJM will post Phase 2 FAQ after Phase 1 goes live.

Q3 When will the implementation timeline for the RegUp and RegDn be available?

A3 The RegUp and RegDn implementation timeline (Phase 2) will not be available until after the Phase 1 go-live on Oct. 1, 2025.

Q4 Will the current RegD resources be able to follow the new single bidirectional signal?

A4 The current RegD resources are expected to be able to follow the new single bidirectional signal.

Q5 What does Regulation Redesign Phase 1 entail?

A5 Regulation Redesign Phase 1 consolidates the current RegA and RegD bidirectional signals into a single bidirectional signal that all resources assigned Regulation will follow. Table A5 below summarizes the changes in Phase 1:

Table A5: Phase 1 Summary of Changes

No.	Component	Description
1	Signal(s)	Change from two signals (RegA and RegD) bidirectional to one signal bidirectional that all resources that are assigned Regulation in a given market interval will follow.
2	Requirement MW	<ul style="list-style-type: none"> a) Redefinition of the days classified under various seasons b) Modification to the magnitude of Regulation procured during “high” (formerly “on-ramp”) and “low” (formerly “off-ramp”) hours c) Redefinition of the hours considered “high” Regulation and “low” Regulation (formerly labeled as “on-ramp” and “off-ramp” hours)
3	Performance Scoring	Change from accuracy, delay and precision to precision only.
4	Offer and Clearing Timing	Eliminate “cost increase in VOM” except for Reg-only resources, change from hour clearing and commitment to 30-minute clearing and commitment.

No.	Component	Description
5	Opportunity Cost Calculation Reform	a) Use the schedule the resource is running for energy or else the cheaper of available schedule for offline. b) Use tracking desired MW at LMP ramp rate limited. c) Use the area between LMP and the energy schedule the resource is running on.
6	Settlement	For the eligible resources, Settlement will calculate the shoulder interval opportunity cost for the two five-minute ramp-in intervals before the resource Regulation operation and the two five-minute ramp-out intervals following the resource Regulation operation (currently, three intervals ramp-in and three intervals ramp-out).

Q6 What will the new single bidirectional signal look like?

A6 On average, the new single bidirectional signal will be faster than the current RegA signal but slower than the current RegD signal.

Q7 How will the current Regulation resources transition to Phase 1 Regulation resources?

A7 Table A7 below describes the Regulation resources transition process:

Table A7: Summary of Regulation Resources Transition for Phase 1 Only

	No.	Status Quo (Pre Phase 1)	For Phase 1 Transition
Signal Type and Testing Requirement	1	RegD signal and RegD resources participation in the Regulation Market	Effective Oct. 1, 2025, RegD signal and RegD-only resources participation in the Regulation Market will be terminated.
	2	RegD-only certified resources	To avoid disruption during Phase 1 transition on Oct. 1, 2025, RegD-only resources that want to continue to participate in the Regulation Market will need schedule signal conversion testing anytime from June 1, 2025.
	3	RegA-only certified resources.	No additional testing is required as new signal will use RegA signal path.
	4	RegA/RegD dual-certified resources	Effective Oct. 1, 2025, RegA/RegD dual-certified resources will continue on RegA signal only for continuous participation in the Regulation Market.

	No.	Status Quo (Pre Phase 1)	For Phase 1 Transition
Regulation Certified MW	5	RegD-only certified resources	Effective Oct. 1, 2025, RegD-only resources that completed their signal path conversion test successfully will automatically carry forward their RegD certified MW as Reg Certified MW except if an uprate or derate MW test is requested.
	6	RegA-only certified resources	RegA certified MW will automatically carried forward.
	7	RegA/RegD dual-certified resources	Effective Oct. 1, 2025, RegA/RegD dual-certified resources will automatically carry forward the higher of RegA or RegD certified MW as Reg certified MW.
Historic Performance Score	8	RegD-only certified resources	Effective Oct. 1, 2025, RegD-only resources that completed their signal path conversion test successfully will automatically carry forward their RegD historic performance score as Reg historic performance score.
	9	RegA-only certified resources	RegA historic performance score will automatically carry forward.
	10	RegA/RegD dual-certified resources	Effective Oct. 1, 2025, RegA/RegD dual-certified resources will automatically carry forward the higher of RegA or RegD historic performance score as Reg historic performance score.

Q8 Where to send my Regulation redesign related questions?

A8 Please direct your inquiry to the applicable contacts listed in table A8 below:

Table A8: Summary of Regulation-Related Email Contacts

No.	Inquiry	Email Contact
1	To request a Regulation test	RegulationTesting@pjm.com
2	Regulation telemetry – signal setup or conversion	PJMTelemetrySupport@pjm.com
3	Regulation redesign questions	RegulationDesign@pjm.com
4	Communication to PJM Member Relations	custsvc@pjm.com

Q9 Will there be updates to the Regulation-related documents posted on the Ancillary Services page under the markets & operations menu on the PJM website, PJM.com?

A9 Yes, PJM will make updates to the related documents listed in table A9 below by June 1, 2025, for Phase 1 implementation.

Table A9: Regulation-Related Web Posting

No.	Document
1	Regulation Test Signal Sample Pattern
2	Regulation Self-Test Performance Scoring (Precision-Only) Template
3	Regulation Effective MW Requirement Definition
4	Regulation Two-Part Cost-Based Offer Validation Template
5	Regulation Control Education
6	Regulation LOC

Q10 What about the Regulation Requirement MW annual review process?

A10 The hourly Regulation requirement MW update will happen annually beginning in October 2026. The requirement MW will be modified based on system needs to address the energy transition and integration of renewables based on defined criteria. The update in October 2026 will adjust RegUp and RegDn equally. The update in October 2027 will adjust RegUp and RegDn separately. Table A10 summarizes the review steps:

Table A10: Regulation Requirement MW Annual Update

No	Step	Description
1	Annual review period	Oct. 1 of previous year through Sept. 30
2	Logic	The requirement MW updates will maintain the defined high/low/transition hours
3	Communication	Update will be presented at the October MIC/OC
4	Requirement MW update	Effective from Nov. 1 through Oct. 31

Q11 Will all Regulation resources be able to continue to include the variable operation and maintenance (VOM) cost in its offer?

A11 Effective Oct. 1, 2025, only the non-energy Regulation resource may include VOM in its offer.

Q12 How will PJM ensure that the existing Regulation offers that might already include the variable operation and maintenance (VOM) cost is not inadvertently carried into the Regulation Redesign Phase 1?

A12 As a way to mitigate the potential risk of any ineligible resources inadvertently carrying the VOM cost into Phase 1, PJM will terminate the current Regulation offer prices of all resources except Economic Load Resource and non-energy Regulation-only resources, on Oct. 1, 2025. PJM will require that all the affected Regulation resources submit new offer prices in accordance with the new rules effective Oct. 1, 2025.

Q13 Where, when and how frequently PJM will clear the Regulation Market?

A13 PJM currently clears the Regulation Market in real time, one hour ahead of the operating time and for a duration of an hour. Effective Oct. 1, 2025, PJM will continue to clear Regulation only in real time. In addition, PJM will start to clear the market twice an hour (hh:00 and hh:30), 30 minutes ahead of the operating time and for a duration of 30 minutes. For example, the Regulation Market clearing engine will kick off at 09:30 to clear resources for Regulation and commit from 10:00 to 10:30. See [Regulation Clearing and Commitment](#).

Q14 How frequently can a resource change its regulation offer and availability status in Markets Gateway?

A14 For Market Participants who did not elect to opt out of Intraday, the Regulation Offer MW, Offer Price and other related MW parameters will remain hourly quantities, but effective Oct. 1, 2025, the lockout timing will move from 65 minutes before the operating hour to 35 minutes. For all the Regulation Market Participants, the resource availability status will be updateable every 30 minutes of the Regulation clearing and commitment interval, 35 minutes ahead of time.

Q15 How does the Phase 1 implementation affect the Markets Gateway?

A15 We expect changes on Markets Gateway's Regulation Market and Market Results pages and their corresponding XML. PJM will communicate the additional information on the specific changes timely and as they become available at the Tech Change Forum and other communication outlets.

Q16 Is the Regulation Margin Adder of \$12 changing in Phase 1?

A16 The Regulation Margin Adder of \$12 will not change in Phase 1.

Q17 Will PJM continue to calculate the Regulation benefits factor?

A17 Effective Oct. 1, 2025, with the termination of the RegD signal, PJM will no longer calculate or use the Regulation benefits factor in the Regulation Market.

Q18 Will there be an opportunity for the Market Participant to test the Regulation offer submittal and result extraction in the Markets Gateway Training environment?

A18 As indicated in the Phase 1 timeline table A20, the Market Participants will have the opportunity to test Regulation data in the Markets Gateway Train environment.

Q19 When will the Market Participants be able to submit Regulation offer data in the Markets Gateway for Phase 1 go-live of Oct. 1, 2025?

A19 The Regulation Market for the Phase 1 go-live date of Oct. 1, 2025, will open seven days in advance, on Sept. 25, 2025.

Q20 What is the implementation timeline for Phase 1?

A20 The Phase 1 implementation tentative timeline is described in table A20 below:

Table A20: Phase 1 Milestones and Tentative Timeline

No.	Milestone	Timeline
1	Regulation redesign project – information update at the MIC/OC	November 2024
2	State & Member training	May 2025
3	Markets Gateway Train (Sandbox) Opens for Testing	May or June 2025
4	RegD resources conversion testing begins	June 2025
5	All related manuals first read (Phase 1)	July 2025
6	All related manuals endorsed (Phase 1)	August 2025 (September if needed)
7	Special education session	August 12 / September 5, 2025
8	Regulation redesign Phase 1 market opens	Sept. 25, 2025
9	Regulation redesign Phase 1 go-live (cutover)	Oct. 1, 2025 at 00:00

Q21 When will PJM stop the qualification test for new RegD resources?

A21 PJM will stop the qualification test for new RegD resources on **Sept. 1, 2025**.

Q22 When will PJM stop retesting for existing RegD resources?

A22 PJM will stop retesting for existing RegD resources on **Sept. 22, 2025**.

Q23 Will there be updates to this FAQ document?

A23 PJM will update this FAQ document periodically until the Phase 1 go-live date of Oct. 1, 2025.

Q24 Will RegD-only resources need to get new telemetry to continue participating in the Regulation Market redesign Phase 1?

A24 PJM will reuse the same RegA Telemetry points for RegA resources, but RegD-only resources must contact PJM Telemetry Support to update their points.

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Q25 Will the signal conversion test require the resource to actively follow the Reg signal to demonstrate performance, or is it mainly a communication check to confirm receipt of the signal?

A25 The signal conversion test ensures that the RegD-only testing resource can follow the new Reg signal. The resource must actively follow the test signal so that Performance Compliance can reasonably determine whether it is ready to transition to the new Reg signal when Phase 1 goes live.

Q26 What is the duration of Regulation qualification or requalification test?

A26 Recognizing that the Regulation product commitment period will transition from 60 minutes to 30 minutes effective Oct. 1, 2025, the Regulation qualification or requalification test will remain at a 40-minute duration.

Q27 What are the test format or evaluation criteria for the RegD signal conversion test?

A27 PJM will conduct the signal conversion test using the new Reg signal. However, scoring will use the existing performance score calculation (33.33% accuracy, 33.33% delay and 33.33% precision). The resource must test for the same megawatt capability or less than it was qualified for RegD. Resource owners must take the RegD-only resource testing for signal conversion out of the Regulation Market in the hour it is testing. The rest of the resources in the RegD-only fleet can continue participating in the Regulation Market during the signal conversion test.

Q28 When will PJM post a sample of the new Reg signal for testing?

A28 PJM plans to post the new Reg sample test signal by May 2025.

Q29 For the RegD signal conversion test, will PJM be testing all resources in a given RegD fleet that wants to continue to participate in the PJM Regulation Market post-Phase 1 go-live on Oct. 1, 2025?

A29 In a case of a RegD fleet that consists of one resource, the resource owner will need to schedule the RegD resource for the signal conversion test.

In a case of RegD fleet that consist of multiple resources, the resource owner will need to schedule a test for only one resource from the fleet. Upon a satisfactory test result, PJM will update data for all resources in the fleet that are willing to continue participating in the Regulation Market for the effective date of Oct. 1, 2025.

Q30 How will PJM calculate the Regulation performance score in the redesign that is effective on Oct. 1, 2025?

A30 The performance score calculation in the Regulation redesign is moving to a new 100% precision calculation. The new precision formula is described in [slide 7 of the presentation \(PDF\)](#).

Q31 Will the Regulation Redesign Phase 1 affect the Performance Group for the performance scoring?

A31 The use of Performance Group described in section 4.4.7 of Manual 12 is preserved in Phase 1. All of the existing Performance Group shall be removed in Phase 2, and the resource owner will need to reapply.

Q32 How would PJM calculate the resource historic performance score in the Regulation Redesign?

A32 Effective Oct. 1, 2025, the historic performance score will remain a 100-hour performance average. PJM will calculate the Regulation resource historic performance scores based on the new 30-minute commitment performance score rather than hourly commitment performance scores. Historic performance scores will be calculated based on 200 30-minute intervals rather than 100 hours.

Q33 What are the changes to Regulation testing?

A33 Regulation testing is scheduled to start June 1, 2025. Testing after this date will follow the new Regulation test signal for the Regulation Redesign Phase 1, but the performance scoring will use the status quo scoring methodology of 33.33% accuracy + 33.33% delay + 33.33% precision. Regulation testing after Oct. 1, 2025, will use the new Regulation test signal, and 100% new precision scoring calculation as performance score.

Q34 What is the difference between Regulation self-de-assignment versus PJM dispatcher de-assignment in respect to performance scoring?

A34 As discussed at the RMDSTF and endorsed, self-de-assignment will result in zero performance score for the remainder of the commitment period. For a PJM dispatcher de-assignment, the historic performance score will be used in the remainder of the period the resource is de-assigned.

Q35 When does PJM plan to have a Tech Spec document outlining the changes for Markets Gateway for Phase 1?

A35 PJM plans to provide the initial documentation about changes to Markets Gateway, due to the Regulation Redesign Phase 1, around May/June 2025, and then open the sandbox (Markets Gateway Train) for testing thereafter.

Q36 Can you explain how unit pre-ramping into the Regulation band in order to provide Regulation service is achieved?

A36 With the Regulation redesign, there is an engine change that will have RT-SCED pre-ramp the units that are eligible for shoulder interval opportunity cost (excluding CT and hydro generator) coming into Regulation from about 10 minutes before the start of the regulating interval in order to get the unit to the Regulation set point. The shoulder interval opportunity cost covers the cost associated with uneconomic dispatch of the applicable units coming into Regulation.

Q37 How long will the RegD-only resource signal conversion take from a member perspective?

A37 The answer varies based on current practices and implementation for each member. Members that are performing the changes in-house can perform these changes as they would for any other new SCADA point. If third-party services are required, then the timing and costs associated with those changes would have to be determined with the external service provider.

Q38 What SCADA and telemetry changes would I need to account for in order to perform the RegD-only resource signal conversion changes?

A38 The answer varies based on the type of communication that is established with PJM.

If the unit communicates to PJM via IEC 61850, then the member would need to coordinate new IEC 61850 Object IDs with PJM's Telemetry Support group via PJMTelemetrySupport@pjm.com and assign new SCADA objects. These changes may be set up prior to the June 1, 2025, opening of the window for RegD conversion testing.

If the unit communicates to PJM via DNP3, then the member has two options, to be done in coordination with PJM's Telemetry Support group via PJMTelemetrySupport@pjm.com:

- i. Configure brand-new registers to account for the existing RegD points on the register list, as well as the new RegA points. This would potentially require in-house changes by the member, or third-party configuration depending on their implementation practices. These changes may be set up prior to the June 1, 2025, opening of the window for RegD conversion testing.
- ii. Reconfigure the existing RegD registers on the PJM end to RegA. This method, however, requires that the member wait until the Regulation Redesign Phase 1 implementation is complete, meaning they would not be expected to receive the old RegD signal over the existing registers, only the new RegA signal. This would have to be done as close to the official go-live date, or if the unit chooses to transition the signal from RegD to RegA ahead of time.

Q39 When will PJM post the new performance score (precision score calculation) template?

A39 PJM plans to post the new performance score (precision score calculation) template by May 2025.

Q40 When is the Regulation Redesign Open House session?

A40 The Regulation Redesign Open House session has been canceled.