

RTO/ISO Deactivation Processes

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This presentation will cover three main topics:

1. History of the development of PJM's RMR regime

2. Explore other FERC-accepted RMR regimes, including:

- Mandatory v. optional RMR constructs and relevant Commission precedent
- Compensation mechanisms
- Deactivation Processes (i.e., deactivation notices, RMR terms, RMR services, anti-toggling provisions, RMR alternatives)

3. FPA Section 202(c) authority

DKT # EL03-116

April 2, 2003, Reliant Energy filed a complaint against PJM:

- Asserting that the price caps on certain generation in PJM subject to chronic transmission constraints were not just & reasonable;
- Requesting approval of a Formula Price Cap Mitigation Proposal (Proposal) applicable to those facilities

July 9, 2003, Order (July 9 Order), FERC:

- Denied the Reliant Complaint finding no showing that the current offer caps in the PJM region were unjust and unreasonable; and
- Directed PJM on compliance to re-examine its mechanism for compensation for mitigating market power for must-run services and amend OA if appropriate.

DKT # EL03-236

- In compliance with the July 9 Order, PJM proposed OA revisions to local market rules to address long-term scarcity.
- In May 6, 2004, Order, FERC required two changes to the Tariff's offer-capping provisions and directed PJM to file a clear policy on generator retirements.

In January 25, 2005, Order (January 25 Order) on PJM's Deactivation Proposal, FERC:

- Accepted PJM's short-term RMR compensation structure
- Rejected the provision that PJM can **require** generators to continue to operate finding that PJM had not adequately shown it has the authority to require generators to operate beyond a reasonable notice period.

Deactivation Policy intended to function as a backstop.

PJM should give full consideration to demand response or generator options if they are offered at the time PJM indicates what transmission upgrades are needed; **but**

PJM is *not required* to actively seek out transmission alternatives as part of its deactivation policy.

Goal is to fully compensate any RMR unit for all going forward costs for the RMR period.

- **Not** appropriate to base compensation on generator entry costs
- **Not** intended to promote entry of any particular generator type or support additional generation as the sole solution
- Adders are a reasonable compromise for reflecting costs associated with RMR

FERC agreed that an auction for RMR units would be desirable but not essential and not required as an initial feature of this policy.

1. Performance Standards:

- PJM should limit performance standards to currently existing requirements, i.e., Good Utility Practice and compliance with principles, guidelines, standards, and requirements of NERC and Applicable Regional Reliability Councils.
- FERC found no sufficient reason to impose additional performance penalties on RMR units.

2. PJM must coordinate generator deactivation proposal with its black start policy.

3. Standard zonal allocation method is a reasonable default methodology for assigning cost responsibility to the zone that will receive the most benefit from the reliability benefit provided by the RMR unit.

RTO/ISO	Notice Period	Mandatory/ Voluntary	RMR Agreement	Cost Mechanism
PJM	At Least 90 Days Before Deactivation Date	Voluntary	No <i>Pro Forma</i> Agreement Filed Rate or Informational Filing	Avoidable Cost Credit or cost of service
CAISO	At Least 90 Days Before Deactivation Date	Mandatory	<i>Pro Forma</i> Agreement	Up to full cost of service
MISO	At Least One Year Before Deactivation Date	Mandatory	<i>Pro Forma</i> Agreement	Up to full cost of service
ISO-NE	~ Four Years Before Deactivation Date	Mandatory with some opt-out capability	<i>Pro Forma</i> Agreement	Approved retirement De-List Bid price or cost of service
NYISO	At Least One Year Before Deactivation Date	Mandatory During Notice Period Voluntary After Notice Period Has Passed	<i>Pro Forma</i> Agreement	Availability and Performance Rate or an Owner-Developed Rate (allowing full cost of service)

*Simplified for presentation purposes

Mandatory RMR Regime

California Indep. Sys. Operator Corp. – Mandatory RMR Regime 168 FERC ¶ 61,199 (2019)

Mandatory RMR justified for reliability reasons beyond managing local congestion due to:

- Evolving fleet of resource
- Retirement of gas-fired resources
- System variability and unpredictability due to integration of renewable resources
- Not meant to be used for resource adequacy
- RMR agreements to be used as a measure of last resort

Major Components of CAISO’s RMR Regime

Deactivation Rules	CAISO’s Tariff Section 41 & Appendix G for <i>pro forma</i> RMR agreement
Notice Period	At least 90 days before deactivation
Term	Default one-year term that may be extended by CAISO
Services	RMR resources can be procured to provide Energy, Black Start, Voltage Support or some Ancillary Services
Compensation Mechanism	<p>Full cost-of-service rate based on full fixed cost recovery, less market revenues, plus return on investment.</p> <ul style="list-style-type: none"> • Must Offer Obligation • Non-Availability Charges, Availability Incentive Payments, early Termination Fee
Anti-Toggling Measures	Signed attestation requirement

Mandatory Deactivation Regime

Midwest Indep. Transmission Sys. Operator, Inc., 108 FERC ¶ 61,163 (2004) (Original System Support Resources (SSR) Order)

*FERC deemed the SSR program as a “reasonable backstop measure to (i) assure reliability” that could be compromised by the **exit of uneconomic resources** and (ii) supplement **inadequate reactive power**. (PP 371–372)*

Midwest Indep. Transmission Sys. Operator, Inc., 142 FERC ¶ 61,170 (2013) (Escanaba Order), order on reh’g, 144 FERC ¶ 61,128 (2013)

First SSR agreement filed by MISO that addressed issues of funding unanticipated repairs, discretion to extend SSR agreement, and cost allocation.

More recent SSR agreements filed in Midwest Indep. Transmission Sys. Operator, Inc., 181 FERC ¶ 61,066 (2022) (for voltage-related reliability violations) and

Midwest Indep. Transmission Sys. Operator, Inc., 182 FERC ¶ 61,182 (2023) (for thermal and voltage-related reliability violations)



Major Components of MISO's SSR Regime

Deactivation Rules	MISO Tariff Module C Section 38.2.7 and Attachment Y <i>pro forma</i> SSR agreement
Notice Period	A confidential notice must be provided at least four full Quarterly Study Periods before deactivation date.
Term	Default one-year term; variance allowed
Services	RMR resources can be procured for Energy, Operating Reserve, Up Ramp Capability, Down Ramp Capability, Short-Term Reserve and Other Ancillary Services.
Compensation Mechanism	Up to full cost-of-service rate, where the monthly compensation (regardless of dispatch) is credited or debited against the hourly compensation for energy injections <ul style="list-style-type: none"> • Adjustments based on Capacity Tests, performance penalties and allowances for Material/Unforeseen Circumstance.
Anti-Toggling Measures	“Clawback” measures for capital improvements if return to service
SSR Alternatives	Re-dispatch, remedial action plans, special protection schemes, contracted demand response or Generator alternatives, and transmission expansions

Mandatory Deactivation Regime With Limited Opt Out

New England Power Pool & ISO New England, Inc., 100 FERC ¶ 61,287 (2002)
(order on ISO-NE’s standard market design)

FERC accepted the *pro forma* RMR agreement and RMR provisions justified on reliability need and insufficient market revenues. (PP 49–51)

Devon Power LLC., 115 FERC ¶ 61,340 (2006)
(orders on rehearing omitted)

FERC accepted ISO-NE’s Forward Capacity Market (FCM) design construct and settlement; current RMR rules tied to FCM rules.

Constellation Mystic Power, LLC, 172 FERC ¶ 61,044 (2020) involving RMRs for regional fuel security. D.C. COA remanded issues involving cost allocation and vacated FERC’s ruling on a “clawback” provision. See *Constellation Mystic Power, LLC v. FERC*, 45 F.4th 1028 (D.C. Cir. 2022). Matter back at FERC for settlement judge procedures.

Major Components of ISO-NE’s RMR Regime

Deactivation Rules	ISO-NE Tariff Section III.13 Forward Capacity Market and Attachment I <i>pro forma</i> RMR agreement
Notice Period	Approximately four years prior to deactivation date unless Capacity Supply Obligation is transferred
Term	A minimum of one-year term
Services	Forward Capacity Market
Compensation Mechanism	Based on the final price of the deactivation request or cost-of-service compensation pursuant to an RMR agreement
Limited Opt Out	In certain cases, the Market Participant may decline to be retained for reliability (See Section III.13.1.2.3.1.5.1(d)).

Additional ISO-NE Voluntary Unit Retention Mechanisms

Fuel Security Program: *ISO New England, Inc.*, 165 FERC ¶ 61,202 (2018), order on reh’g, 173 FERC ¶ 61,204 (2020)

- Applicable during winter periods (Dec.–Feb.) in 2023, 2024 and 2025
- Same compensation mechanism as deactivation rules but cost of service compensation limited to two years

Inventoried Energy Program: ISO-NE Tariff Section III, Appendix K; *ISO New England Inc.*, Notice of Filing Taking Effect by Operation of Law, Docket No. ER19-1428-001 (Aug. 6, 2019); *ISO New England Inc.*, 171 FERC ¶ 61,235 (2020) (order on voluntary remand); *ISO New England Inc.*, 180 FERC ¶ 61,181 (2022) (order directing compliance filing)

- A voluntary program designed to provide incremental compensation to resources that maintain inventoried energy during Dec. 2023–Feb. 2024 and Dec. 2024–Feb. 2025
- The base payment rate for the Dec. 2023–Feb. 2024 period is \$92.51 per MWh.

Mandatory RMR During Notice Period; Voluntary Thereafter

N.Y. Indep. Sys. Operator, Inc., 150 FERC ¶ 61,116 (2015) (order instituting FPA Section 206 proceeding), 155 FERC ¶ 61,076 (2016) (order on compliance) (orders on rehearing omitted)

General guidance on compensation in Section 206 order:

- “Compensation to an RMR generator must at a minimum allow for the recovery of the generator’s going-forward costs, with parties having the flexibility to negotiate a cost-based rate up to the generator’s full cost of service.” (P17)
- An exclusively mandatory RMR regime should provide for compensation at a full cost-of-service rate. (P17)
- Compliance filing should include a *pro forma* RMR agreement (P18), anti-toggling provisions (P21), and consideration of alternatives to meet reliability need. (P16)

Major Components of NYISO’s RMR Regime

Deactivation Rules	NYISO Tariff Section 38 and Appendix C <i>pro forma</i> RMR agreement
Notice Period	A minimum of 365-day notice for generators > 1 MW of nameplate capacity; initial deactivation analysis may allow for earlier retirement.
Term	No specified term
Services	Energy, Operating Reserves, Regulation, Voltage Support, Restoration Services
Compensation Mechanism	<p>Availability and Performance Rate (APR) or Owner-Developed Rate</p> <ul style="list-style-type: none"> • APR consists of capital expenditures, variable costs, availability incentive and performance incentive. Penalties are capped at the total of Availability and Performance Incentives. Must offer requirement. • Owner-Developed Rate up to full cost of service but does not include incentives • Only avoidable cost rate during days 181–365 of notice period
Anti-toggling Provision	Certain repayment provisions for market reentry

Section 202(c)

During the continuance of any war in which the United States is engaged, or whenever the [Secretary of Energy] determines that an emergency exists by reason of a sudden increase in the demand for electric energy, or a shortage of electric energy of facilities for the generation or transmission of electric energy, or of fuel or water for generating facilities, or other causes, the [Secretary of Energy] shall have the authority, either upon its own motion or upon complaint, with or without notice, hearing, or report, to require by order such temporary connections of facilities and such generation, delivery, interchange, or transmission of electric energy as in its judgment will best meet the emergency and serve the public interest.

[Full text included as separate attachment].

See also regulations set forth at 10 C.F.R. Part 205.

Section 202(c)

An emergency can result from . . . a regulatory action which prohibits the use of certain electric power supply facilities.

- The Federal Power Act gives the Secretary of Energy the authority to issue must-run orders to individual plants in case of an emergency, exempting them from emissions regulations and insulating them from market forces.
- 202(c) provides that generators shall receive “just and reasonable” terms for carrying out the order.
- 202(c) does not give DOE authority to supersede FERC’s authority over wholesale rates conferred in FPA sections 205 and 206.

DOE 202(c) orders issued requiring:

June 16, 2017

Dominion Energy Virginia to operate Yorktown Units 1 (159 MW) and 2 (164 MW) only as needed and as determined by PJM to address reliability needs.

August 24, 2005

Potomac River (482 MW) plant to ensure reliability of the central D.C. area.

- *Petition triggered by request to deactivate the Units 1 and 2 due to EPA Mercury and Air Toxics Standards (MATS) rule.*
- *PJM found the units would be needed to prevent the possibility of uncontrolled power disruptions and load shedding.*

DOE Conclusion: An emergency exists in Virginia due to a shortage of electric energy, a shortage of facilities for generation of electric energy and other causes.

- Term of the Order from June 16, 2017, to Sept. 14, 2017, subject to renewal.
- To minimize adverse environmental impacts, the units may operate only when called upon by PJM for reliability purposes.

Compensation. On March 2, 2017, FERC accepted Dominion’s filing for DACR for Yorktown Units 1 and 2 in FERC Docket No. ER17-750, effective Jan. 5, 2017.

- *08/2005 202(c) Petition triggered by letter from the DOE Quality (DEQ) directing Mirant to immediately take actions necessary to limit plant emissions from the coal-fired plants exceeding the National Ambient Air Quality standards.*
- *Based on analysis, Central D.C. had only 3 sources of supply, the plant and two 230 kV lines and the plant was needed when one of the lines was out of service.*
- *DOE Order on Petition and FERC Complaint (Dkt #EL05-145) for 12/20/2005 – 09/06/2006 addressed short-term reliability issues.*

Conclusion: Without the necessary air quality permits, an emergency exists because of:

- The reasonable possibility an outage will occur that would cause a blackout
- The number and importance of facilities and operation's in D.C. that would be potentially affected by a blackout and the extended period of any blackout

Compensation. Potomac River did not operate as an RMR unit.

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