

Federal Energy Regulatory Commission

# Price Formation at FERC

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Presented to:

**Western Regional Issues Forum**

December 3, 2019

# Disclaimer

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The views expressed are my own and do not necessarily represent those of the Commission, the Chairman, or any individual Commissioner.

# Overview and Objectives

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- Brief overview of FERC and the “just and reasonable” standard
- Price Formation at FERC
- Considerations for Western market expansion

# FERC's responsibilities include jurisdiction over wholesale electric markets.

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- FERC's regulatory responsibilities include, but are not limited to:
  - Rates and services (in interstate commerce) for:
    - Electric transmission
    - Electric wholesale power sales (in both bilateral and organized markets)

(Principally under Parts II and III of the Federal Power Act (FPA))
  - Certification and decertification of Qualifying Facilities (QF) and oversight of QF-utility filings (Principally under PURPA)

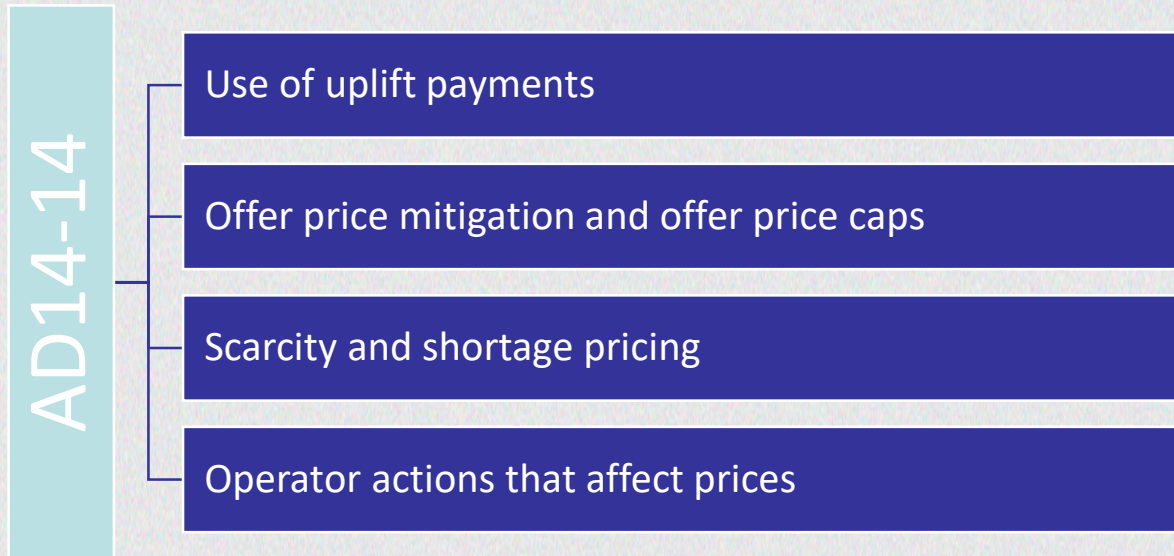
# The Commission evaluates proceedings using a “just and reasonable” standard.

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- Rates, terms and conditions must be “just and reasonable” (J&R) and must be “not unduly discriminatory or preferential”
- Alternatively: rates, terms and conditions cannot be “unjust or unreasonable” and cannot be “unduly discriminatory or preferential”
- Thus, similar standards govern both FPA Section 205 proceedings (utility-initiated proceedings) and FPA Section 206 proceedings (complaint/FERC-initiated proceedings)

# Various Price Formation discussions revealed that certain RTO/ISO practices may not be J&R.

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On June 19, 2014, in Docket No. AD14-14, the Commission initiated a proceeding on Price Formation in Energy and Ancillary Services Markets Operated by RTOs/ISOs. In 2014 and 2015, the Commission held technical conferences and took public comment on specific price formation topics.



# The Commission recognized that LMPs may not fully reflect the true marginal cost of production.

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## Goals of Price Formation:

1. Maximize market surplus for consumers and suppliers
2. Provide correct incentives for market participants to follow commitment and dispatch instructions, make efficient investments in facilities and equipment, and maintain reliability
3. Provide transparency so that market participants understand how prices reflect the actual marginal cost of serving load and the operational constraints of reliably operating the system
4. Ensure that all suppliers have an opportunity to recover their costs

NOTE: Although the discussion focused on RTO/ISO markets, similar technical and operational limitations affect the efficient commitment of resources operating in other market structures.

# Commission action on Price Formation included Staff reports available to the public.

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- *Uplift in RTO and ISO Markets, August 2014*
- *Staff Analysis of Shortage Pricing in RTO and ISO Markets, October 2014*
- *Staff Analysis of Energy Offer Mitigation in RTO and ISO Markets, October 2014*
- *Operator-Initiated Commitments in RTO and ISO Markets, December 2014*



# The Commission also issued NOPRs and Final Rules.

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- Final Rules
  - Order No. 825: Settlement Intervals and Shortage Pricing (June 16, 2016)
  - Order No. 831: Offer Caps (November 17, 2016)
  - Order No. 844: Uplift Cost Allocation and Transparency (April 19, 2018)
- Notice of Proposed Rulemaking (NOPR)
  - Fast Start Pricing

# Order No. 825 addressed settlement intervals and shortage pricing. (RM15-24-000)

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Need for Reform (Settlement Intervals)	Commission Action
<p>Using an <u>hourly</u> price for <u>real-time</u> settlement and <u>5-minute</u> dispatch may:</p> <ul style="list-style-type: none"><li>• Not reflect the value of providing a given service</li><li>• Contribute to a lack of response to actual operating needs</li><li>• Discourage resources from following 5-minute dispatch instructions</li><li>• Increase the need for uplift payments</li></ul>	<p>The Commission required that each RTO/ISO align settlement and dispatch intervals by:</p> <ul style="list-style-type: none"><li>• Settling RT energy transactions at the same interval it dispatches energy</li><li>• Settling operating reserves transactions in RT at the same interval it prices operating reserves</li><li>• Settling inertia transactions in the same interval it schedules inertia transactions</li></ul>

# Order No. 825 addressed settlement intervals and shortage pricing. (RM15-24-000)

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Need for Reform (Shortage Pricing)	Commission Action
<p>The Commission observed that:</p> <ul style="list-style-type: none"><li>• Some RTOs/ISOs restricted the use of shortage pricing</li><li>• Not invoking shortage pricing when there is a shortage distorts price signals</li><li>• Distorted price signals may not reflect the value that a resource provides to the system (<i>See also</i> Order No. 719)</li></ul>	<p>The Commission required that each RTO/ISO establish a mechanism to trigger shortage pricing for any interval in which a shortage of energy or operating reserves is indicated during the pricing of resources for that interval.</p>

# Order No. 831 addressed energy market offer caps. (RM16-5-000)

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Need for Reform	Commission Action
<p>The Commission stated that RTO/ISO offer caps may have been unjust and unreasonable because they:</p> <ul style="list-style-type: none"><li>• Prevented resources from recouping marginal costs</li><li>• Suppressed LMPs below the marginal cost of production</li><li>• Might interfere with dispatch because resources' true costs weren't clear</li><li>• Might discourage supply resources from participating</li></ul>	<p>The Commission required that each RTO/ISO:</p> <ul style="list-style-type: none"><li>• Cap each resource's incremental energy offer at the higher of \$1,000/MWh or that resource's verified cost-based incremental energy offer</li><li>• Cap verified cost-based incremental energy offers at \$2,000/MWh when calculating LMP</li></ul>

# Order No. 844 addressed uplift allocation and transparency. (RM17-2-000)

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Need for Reform (Transparency)	Commission Action
<p>The Commission stated that RTO/ISO practices of reporting uplift and operator-initiated commitments were insufficiently transparent (ex: data may have been aggregated).</p> <p>The Commission also found a lack of transparency with regard to Transmission Constraint Penalty Factors, which could affect hedging and stakeholder engagement.</p>	<p>The Commission required that each RTO/ISO report:</p> <ul style="list-style-type: none"><li>• Total uplift payments for each transmission zone</li><li>• Total uplift payments for each resource</li><li>• For each operator-initiated commitment: the size, zone, reason, and start time of the commitment</li><li>• Certain information about Transmission Constraint Penalty Factors</li></ul>

# Order No. 844 addressed uplift allocation and transparency. (RM17-2-000)

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<b>Need for Reform (Uplift Allocation)</b>	<b>Commission Action</b>
<p>The Commission observed that some RTO/ISO practices of real-time uplift cost allocation to deviations may have allocated costs to transactions that could not reasonably be expected to have caused those costs.</p>	<p>The Commission did not adopt certain proposals related to uplift cost allocation to deviations.</p>

# The Commission did not issue a Final Rule on Fast Start pricing, but took other steps. (RM17-3-000)

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Need for Reform	Commission Action
<p>The Commission observed that certain RTOs/ISOs may have:</p> <ul style="list-style-type: none"><li>• Prevented fast-start resources from setting prices</li><li>• Maintained practices, such as not including commitment costs, that prevented prices from reflecting the cost of serving load</li><li>• Incorporated offline resources in ways that distorted price</li><li>• Maintained practices that undermined price convergence</li></ul>	<p>The Commission did not require a uniform set of fast-start pricing requirements that would apply to all RTOs/ISOs.</p> <p>Instead, the Commission pursued the goals of the NOPR through 206 actions in:</p> <ul style="list-style-type: none"><li>• PJM</li><li>• NYISO</li><li>• SPP</li></ul>

# As western markets develop, Price Formation conversations continue.

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- In a letter to the CAISO Board of Governors and EIM Governing Body, EIM Entities requested that CAISO review price formation.

September 16, 2019

- An evaluation of price formation options for EDAM should include:
  - An exploration of fast-start pricing, including examination of the current approaches in western bilateral markets, CAISO markets, and other RTOs/ISOs.
  - An exploration of scarcity and shortage pricing measures, including examination of approaches in western bilateral markets, CAISO markets, and other RTOs/ISOs



Thank you!