FERC Order 831

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PJM Tech Change Forum
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• Order 831
• Offer Verification Timeline
• Implementation Overview
• Tool Changes
• Next Steps
• FERC Order 831 “Offer Caps”:
  – Validation of cost of incremental energy offers that exceed $1,000/MWh before the unit is allowed to set LMP
  – Maximum incremental cost allowed to set LMP at $2,000/MWh

  “… ensure that a resource’s cost-based incremental energy offer reasonably reflects that resource’s actual or expected costs.”

• Ex ante Validation implementation November 1st, 2017 with IDO
Planned Offer Verification Timeline

- FERC Order Issued 11/17/16
- Compliance Filing Submitted 5/8/17
- FERC Order Accepting Filing- TBD

Process and Implementation Review
- July
  - Manual 11 Updates- First Read
    - August

Member Training and Example Review
- August and September
  - Markets Gateway Sandbox Testing
    - September

Implementation Effective
- November
## Offer Verification “Screen”

- Cost Offers > $1,000 will be rejected in Markets Gateway.
- Market Seller must submit an offer less than or equal to $1,000 in Markets Gateway, and email PJM an excel template with the desired offer curve, including heat input and performance factor data.
- Automated screen applied in Markets Gateway at time of offer submission.
- Heat input and performance factor data submission tool still TBD.
- Cost Offers >$1,000 will be capped at the greater of $1,000, or the price on the most expensive verified segment on the curve.

## Exception Process

- If the offer does not pass the verification screen, Market Sellers must submit documentation for cost offers >$1000.
- Market Seller to send email to PJM and attach completed excel template and documentation to support expected or actual fuel costs.
- Approval/Rejection email sent to Market Seller.
For Economic DR and Load Management Resources with Cost Offers > $1,000/MWh

<table>
<thead>
<tr>
<th>Data Collection</th>
<th>November 2017- Future Compliance Filing Effective Date</th>
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<tbody>
<tr>
<td>• CSP submits Incremental Cost ($/MWh) summary by category in DR Hub which will establish offer curve cap in Markets Gateway &gt;$1,000/MWh and &lt;=2,000.</td>
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<tr>
<th>Offer Verification</th>
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<tr>
<td>• CSP must certify accuracy of incremental cost and provide detailed support for development of cost for offer hours prior to offer. Energy offers in Markets Gateway will be capped at incremental offer amount.</td>
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Implementation details may change based on FERC approval of compliance filing
<table>
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<tr>
<th>Tools</th>
<th>November 2017</th>
<th>March 2018</th>
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<tbody>
<tr>
<td></td>
<td>• Cost offer maximum changed to $1,000</td>
<td>• Markets Gateway Screen</td>
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<td>• XML (specification available by 11/30/2017)</td>
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Next Steps

• Manual 11 Revisions
  • MIC First Read – August 9
  • MRC First Read – August 24
  • MIC Vote – September 13
  • MRC Vote – September 28

• Education Sessions (coordinated with Intraday Offers):
  • August 7
  • September 15
*Registration is open on the Tech Change Forum page

Questions: Please email EnergyOfferVerification@pjm.com