UNITED STATES OF AMERICA BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

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Independent Market Monitor for PJM)	
V.)	Docket No. EL14000
PJM Interconnection, L.L.C.)	
)	
)	

COMPLAINT AND MOTION TO CONSOLIDATE OF THE INDEPENDENT MARKET MONITOR FOR PJM

Pursuant to Rules 206 and 212 of the Commission's Rules and Regulations,¹ and section 206 of the Federal Power Act,² Monitoring Analytics, LLC, acting in its capacity as the Independent Market Monitor for PJM ("Market Monitor"),³ submits this complaint.

The rules applied to Demand Resources in the current market design do not treat Demand Resources in a manner comparable to other Capacity Resources, even though Demand Resources are sold in the same capacity market, are treated as a substitute for other Capacity Resources and displace other Capacity Resources in RPM auctions. PJM stakeholders have had a reasonable opportunity to address these issues, but the proposed revisions that resulted from the stakeholder process, filed by PJM in Docket No. ER14-822-000 on December 24, 2013 ("December 24th Filing"), are inadequate to address these serious issues. A daily must offer requirement should apply to Demand Resources, comparable to the rule applicable to Generation Capacity Resources. An offer cap of \$1,000 per MWh

¹ 18 CFR § 385.206 and 385.212 (2013).

² 16 U.S.C. § 824e (2000).

Capitalized terms used herein and not otherwise defined have the meaning used in the PJM Open Access Transmission Tariff ("OATT") or the PJM Operating Agreement ("OA").

should apply to energy offers from Demand Resources, equal to the offer cap applicable to energy offers from Generation Capacity Resources. The current rules allowing non comparable Demand Resources are unjust, unreasonable and unduly discriminatory, and PJM should be directed to take immediate action to correct this design flaw.

The unjust and unreasonable aspects of the PJM market design involve the same facts and circumstances that PJM attempted to address in its December 24th Filing. Accordingly, the Market Monitor moves to consolidate its complaint in this proceeding with the proceeding in Docket No. ER14-822 so that the Commission can efficiently resolve the issues raised.

I. COMMENTS

A. Demand Resources Should Have a Must Offer Requirement in Order to Ensure Comparable Rules for Demand Resource Availability.

PJM's December 24th Filing makes explicit what has been clear for some time. Despite the fact that Demand Resources are cleared in the PJM capacity market as full substitutes for Generation Capacity Resources, Demand Resources are treated as emergency resources in actual operations and not as economic resources. Demand Resources must be in the PJM Emergency Load Response Program. Regardless of the formal PJM nomenclature, Demand Resources and Generation Capacity Resources that clear in the capacity market are economic resources by definition. Demand Resources offer and compete in a market and are selected as part of a market clearing process. Demand Resources are thus an economic resource. Demand Resources continue to be treated in a different way than other economic resources. Demand Resources are provided special treatment that means they are not a full substitute for other Capacity Resources and that limits their usefulness to the system.

PJM recognizes this fundamental problem. In the stakeholder process that led to the December 24th Filing, PJM staff explained why a daily must offer requirement for Demand Resources was needed.⁴ The December 24th Filing explicitly acknowledges (at 12–13) that PJM modified the filing based on discussions with CSPs who provide Demand Resources, despite its own views.

The December 24th Filing states (at 3) that because Demand Resources have a low participation rate in the Economic Program, "PJM does not have available to it Demand Resources as part of the normal economic dispatch process until it initiates Emergency procedures." In contrast, all Generation Capacity Resources must offer daily into the Day-Ahead Energy Market.⁵ The December 24th Filing recognizes the problem but the proposed changes would not solve the problem. Providing calls on some Demand Resources just prior to emergency events does not ensure availability comparable to that provided by Generation Capacity Resources that are required to make offers into the Day-Ahead Energy Market every day. In addition, PJM's proposal would exempt Demand Resources that use behind the meter generation, a resource type that is identical to Generation Capacity Resources other than its location behind the meter. Demand Resources using behind the meter generation represent 18.3 to 21.6 percent of Demand Response MW in the 2014/2014 Delivery Year.⁶

See PJM, "DR as Operational Resource Economic DR: energy market offer process," presented at the Capacity Senior Task Force (CSTF) meeting convened July 17,.2013 which can be accessed at: < http://www.pjm.com/~/media/committees-groups/task-forces/cstf/20130717/20130717-item-02b-economic-dr-energy-market-offer-process-education.ashx>; PJM, "DA Offer for Demand Response," presented at CSTF meeting convened September 24, 2013, which can be accessed at: < http://www.pjm.com/~/media/committees-groups/task-forces/cstf/20130924/20130924-item-03b-cstf-dr-energy-offers-education.ashx>. These presentations are also included as Attachment A.

⁵ OA Schedule 1 § 1.10.1A(d).

The reported Demand Response registrations list 18.3 percent of registered MW as behind the meter generation, and 3.3 percent as other. Since the Demand Resources listed as other do not

The straightforward solution to this design issue is to establish rules for Demand Resources availability consistent with Demand Resources role as an economic resource, including rules that require Demand Resources to offer in the Day-Ahead Energy Market with an offer cap of \$1,000 per MWh. The Commission has accepted a must offer requirement for Demand Resources in ISO New England, Inc. ("ISO-NE").7 The Commission has also stated that demand-side resources should be treated comparably to generation resources,8 but not necessarily identically when demand-side resources have different characteristics.9

clarify how the reductions are occurring, up to 21.6 percent of Demand Resources could be using behind the meter generation for curtailment.

- ⁷ See ISO New England Inc., 142 FERC ¶ 61,027 at PP 27–30 (2013).
- See, e.g., Demand Response Compensation in Organized Wholesale Energy Markets, Order No. 745, 134 FERC ¶61,187 at P 66 (2011) ("Order No. 745") ("The Commission agrees that as a general matter demand response providers and generators should be subject to comparable rules that reflect the characteristics of the resource, and expect ISOs and RTOs to continue their evaluation of their existing rules in light of this Final Rule and make appropriate filings with the Commission."); Wholesale Competition in Regions with Organized Electric Markets, Order No. 719, FERC Stats. & Regs. ¶31,281 at PP 47, 50 (2008) ("Order No. 719") ("the Commission adopts the NOPR proposal to require each RTO or ISO to accept bids from demand response resources, on a basis comparable to any other resources, for ancillary services that are acquired in a competitive bidding process"... we decline to define "comparable treatment." Each RTO and ISO is unique, and the Commission hesitates to impose a uniform definition. Each RTO and ISO therefore should establish policies and procedures in cooperation with its customers and other stakeholders that ensure that demand response resources are treated comparably to supply-side resources."), order on reh'g, Order No. 719-A, FERC Stats. & Regs. ¶31,292 (2009), reh'g denied, Order No. 719-B, 129 FERC ¶ 61,252 (2009).; Preventing Undue Discrimination and Preference in Transmission Service, Order No. 890, FERC Stats. & Regs. ¶31,241 at P 479 ("where demand resources are capable of providing the functions assessed in a transmission planning process, and can be relied upon on a long-term basis, they should be permitted to participate in that process on a comparable basis."), order on reh'g, Order No. 890-A, FERC Stats. & Regs. ¶31,261 (2007), order on reh'g, Order No. 890-B, 123 FERC ¶61,299 (2008), order on reh'g, Order No. 890-C, 126 FERC ¶61,228 (2009), order on clarification, Order No. 890-D, 129 FERC ¶61,126 (2009); Mandatory Reliability Standards for the Bulk-Power System, Order No. 693, FERC Stats. & Regs. ¶31,242 at P 330, order on reh'g, Order No. 693-A, 120 FERC ¶61,053 (2007).
- ⁹ See Order No. 745 at P 66.

Generation Capacity Resources and Demand Resources compete to sell capacity in the same RPM auctions. When Demand Resources clear in an RPM auction they displace Generation Capacity Resources, MW for MW. Generation Capacity Resources must offer into the Day-Ahead Energy Market daily. Every Generation Capacity Resource must be available to the system for every hour of the year, or a maximum of 8,760 hours. Yet Demand Resources are not required to be available in the Day-Ahead Energy Market, at any price. Limited Demand Resources are only required to be available for ten emergency calls for six hours, or a maximum of 60 hours, in a year.

As an example, generating facilities located behind the meter are a significant portion of all Demand Resources. The substantial difference in treatment between generation when it is treated as a Demand Resource and generation when it is treated as a Generation Capacity Resource turns solely on the location of the resource relative to a FERC jurisdictional meter. The rules do not need to be different in order to "reflect the characteristics of the resource." ¹⁰

It is unjust and unreasonable that Demand Resources, which serve the same role as Generation Capacity Resources in providing capacity to PJM customers for a Delivery Year, do not submit daily energy offers to PJM.

B. Offer Price Caps for Demand Resources Should Be No Higher Than the Offer Caps for Generating Resources.

Since their inception, the PJM market rules have capped offers in the PJM Energy Market from Generation Capacity Resources at \$1,000 per MWh.¹¹ The same rules applied to Demand Resources until October 1, 2012, when energy market offer caps for Demand Resources were set much higher. Energy market offer caps for Demand Resources whether energy only or energy and capacity were set to the \$1,000 offer cap plus two times the

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¹⁰ *Id*.

¹¹ See OA Schedule 1 § 1.10.1A(d).

shortage pricing penalty factors.¹² Current Demand Resource energy market offer caps are \$1,800 per MWh based on \$1,000 plus two times the shortage pricing penalty factor. Under the current rules, the penalty factors and the market offer caps are scheduled to increase for the next two Delivery Years with an ultimate cap of \$2,700 per MWh.

An offer cap of \$1,800 incorrectly values Demand Resources at shortage pricing levels. This means that although Demand Resources are called when PJM has adequate reserves, Demand Resources are valued as if PJM were short of reserves. In other words, Demand Resources are overpriced when capped at \$1,800.

The December 24th Proposal would implement a range of offer caps equal to \$1,000 plus one or two times the shortage pricing penalty factor, less one dollar. PJM's proposed offer caps are arbitrary and unsupported, and price Demand Resources at only \$1.00 less than shortage penalty factors. Demand Resources would continue to be overpriced at PJM's proposed Demand Resource offer caps.

There is no reason to apply a higher offer cap to Demand Resources than to generation. If a higher offer cap is warranted for the market and the RPM net revenue offset method is refined, then offer caps should be raised for all resource types.

In PJM's scarcity pricing compliance filing, the Commission directed PJM "to remove the \$1,000 offer cap for capacity demand resources." The Commission found (at P 130) that "the key distinction between capacity demand resources and capacity generation resources is the must-offer requirement in the day-ahead market," and determined that the rules must incent voluntary offers from Demand Resources into the energy market. The Commission found (at P 131) that some Demand Resources may not offer as a result of the \$1,000 offer cap.

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¹² See OA Schedule 1 §§ 3.2.3A.001(c) & 3.2.3A(d), effective October 1, 2012.

¹³ See PJM Interconnection, L.L.C., 139 FERC ¶ 61,057 at PP 131 (2012).

The change in the Demand Resource offer cap has not had the intended effect. While Demand Resources may choose to offer in the energy and ancillary service markets as an Economic Load Response resource, PJM states that such participation has been "minimal." ¹⁴ A more direct way to achieve the intended goal is to add a must offer requirement for Demand Resources. PJM included such a requirement in their initial proposal but withdrew it after discussions with Demand Resource providers (at 12–13). The Commission should require a uniform \$1,000 offer cap and add a must offer requirement for Demand Resources. ¹⁵

The Commission should take the opportunity in this proceeding to add a must offer requirement for Demand Resources comparable to the requirement now applicable to PJM Generation Capacity Resources. Accepting a must offer requirement for Demand Resources in PJM would also moot the rationale for requiring different offer caps for Demand Resources. The Commission has accepted ISO New England a uniform \$1,000 offer cap. ¹⁶

II. RULE 206 REQUIREMENTS

A. Rule 206(b)(1): Action or Inaction Alleged To Violate Statutory Standards or Regulatory Requirements

The action or inaction alleged to violate statutory standards or regulatory requirements is discussed in Section I above.

B. Rule 206(b)(2): Legal Bases for Complaint

The legal bases for this complaint are set forth in Section I.

December 24th Filing at 3.

See Protest and Compliance Proposal of the Independent Market Monitor for PJM, ER09-1063-004 (July 19, 2010) at 31–35.

¹⁶ See 142 FERC ¶ 61,027 at PP 27–30; ISO New England Market Rule 1 § III.1.10.1A(d).

C. Rules 206(b)(3) and 206(b)(4): Issues Presented as They Relate to the Complainant and Quantification of Financial Impact on Complainant

The Market Monitor has brought this complaint consistent with its responsibility to monitor "[c]ompliance with the PJM Market Rules" and "[t]he potential for a Market Participant to exercise market power or violate any of the PJM or FERC Market Rules or the actual exercise of market power or violation of the PJM or FERC Market Rules." The rules for Demand Resources do not ensure that Demand Resources are comparable to other Capacity Resources and do not ensure that Demand Resources actually provide the operational benefits of a Capacity Resource which is a direct substitute for other Capacity Resources including generating units. Demand Resources are not available to the market on a daily basis like other Capacity Resources and Demand Resources have an offer cap which will soon be more than two times higher than the offer cap applicable to Generation Capacity Resources. The result is a reduction in the efficiency and competitiveness of the markets.

It is essential for the efficient performance of the capacity market, both for economics and for resource adequacy, that the rules require Demand Resources to operate comparably to other Capacity Resources with which they compete and which they displace in the market.

D. Nonfinancial Impacts on Complainant

See section II.C above.

E. Rule 206(b)(6): Related Proceedings

The issues raised in Docket No. ER14-822-000 are directly related to the issues raised in this complaint. The same arguments raised in this complaint have been raised in comments filed by the Market Monitor in that proceeding on January 14, 2014. In order to

See OATT Attachment M § IV.B.1 & 4.

provide an opportunity to consider and resolve these issues in a single proceeding, the Market Monitor moves for consolidation of this complaint with Docket No. ER14-822-000.

F. Rule 206(b)(7): Specific Relief Requested

The Market Monitor respectfully requests that the Commission direct PJM to submit a compliance filing that provides: (i) a requirement that Demand Resources must offer daily into the PJM Day-Ahead Energy Market, and (ii) a cap on offers from Demand Resources consistent with the offer cap applicable to Generation Capacity Resources, which is now set at \$1,000 per MWh.

G. Rule 206(b)(8): Documents that Support the Complaint

This pleading and its attachments support the complaint.

H. Rule 206(b)(9): Dispute Resolution

The Market Monitor has not contacted the Enforcement Hotline or Dispute Resolution Service or made use of the tariff-based dispute resolution mechanisms. The Market Monitor does not believe that such mechanisms are intended and appropriate for resolving disputes of this nature.

I. Rule 206(b)(10): Form of Notice

A form of notice suitable for publication in the Federal Register is included as Attachment B.

J. Rule 206(c): Service on Respondent

The Market Monitor certifies that copies of this Complaint were served by email and overnight mail on Respondent and by email on the parties including on the official service list for Docket No. ER14-822-000.

III. COMMUNICATIONS

All communications with respect to this pleading and in connection with this proceeding should be addressed to the following:

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Designated to receive service.

Designated to receive service.

IV. CONCLUSION

The Market Monitor respectfully requests that the Commission afford due consideration to the arguments raised in this complaint as the Commission resolves the issues raised in this proceeding.

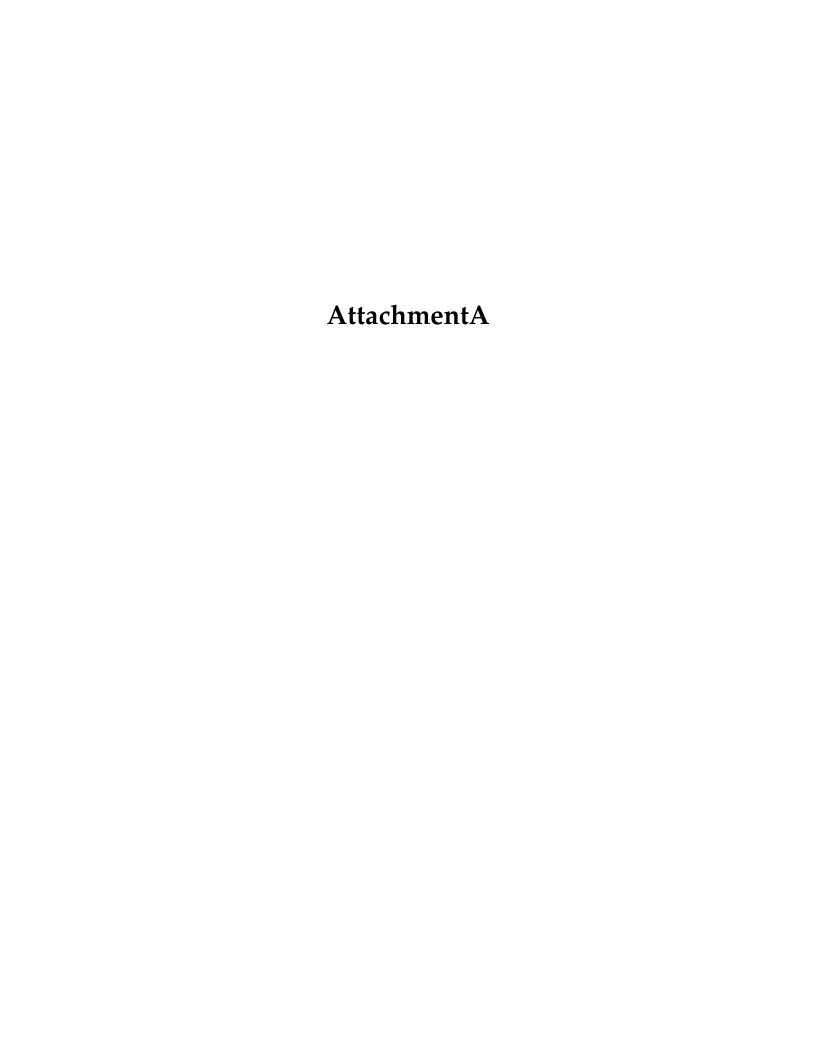
Respectfully submitted,

Jeffrey W. Mayes

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Dated: January 27, 2014

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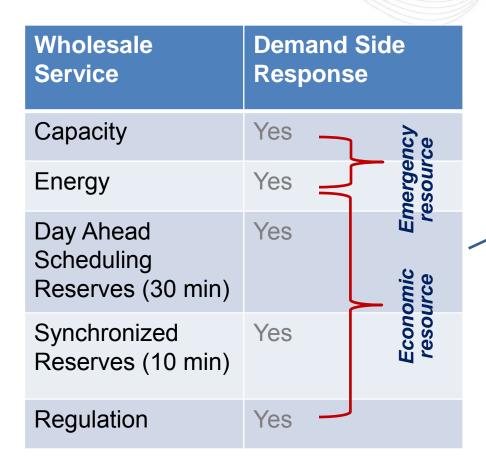
DR as Operational Resource Economic DR energy market offer process

CSTF 7/17/13

www.pjm.com



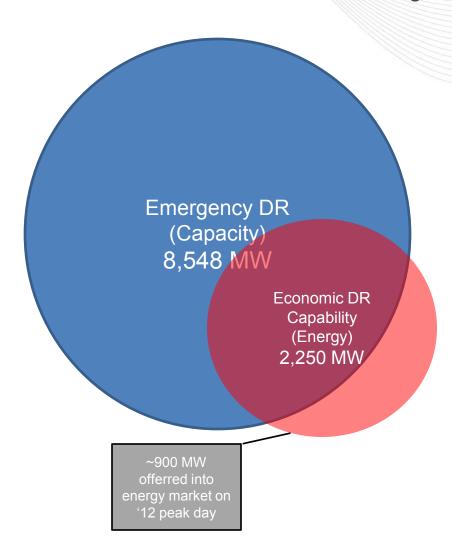
PJM Opportunity by Wholesale Service



Customer decides if they want to participate as emergency and/or economic resource



Emergency DR participation in Energy market



- ~25% of DR Capacity has Economic registration
- ~10% of DR Capacity had economic offer into energy market on peak day
- ~3% of DR capacity provided load reduction in energy market based on economics on peak day





All Economic DR offers need to respect the Day-Ahead market clearing timelines:

- 1) Offers entered by 12 Noon
- 2) From 12 Noon to 4PM, PJM runs the DA market for the next operating day
- 3) At 4PM, PJM will post DSR resources that cleared the DA market, along with DA LMPs







DR Offer Curves Overview:

Offer Curves are required for:

- 1) Day-Ahead Market clearing
- 2) PJM Dispatch in the Real-Time Market

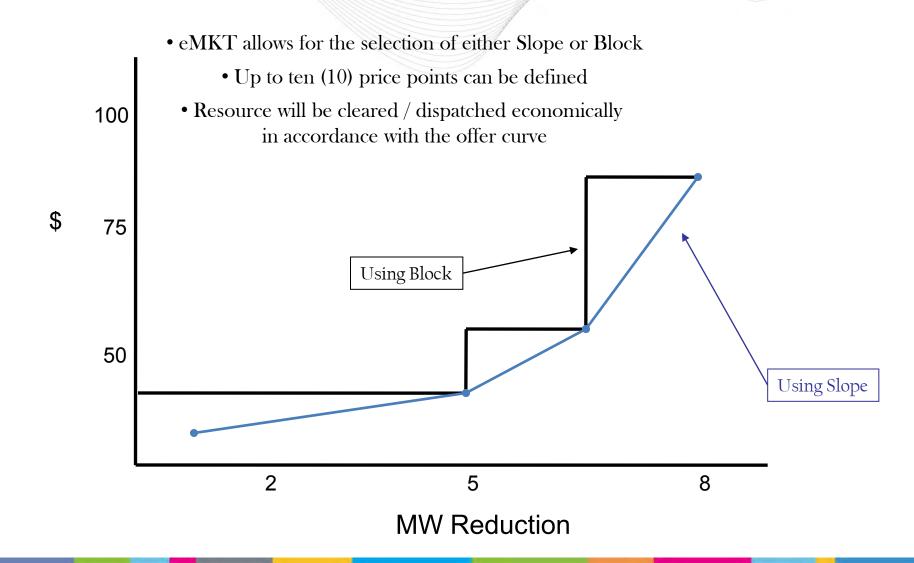
Without an offer curve, there cannot be an economic dispatch in either market for any hour of the day.

Offer Curves are not required for sole participation as a Synchronized Reserve Market resource (no energy settlement)

- Offer curves consists of MW/price pair segments. Up to 10 segments can be defined for each offer curve.
- Each registration can have up to two sets of offer curves, but only one offer curve can be made available on a daily basis.
- Market Type participation (Day Ahead, Balancing or Both) is associated with a schedule that can be changed daily by the CSP
 - Special Members are prevented from participating in the Day Ahead Market

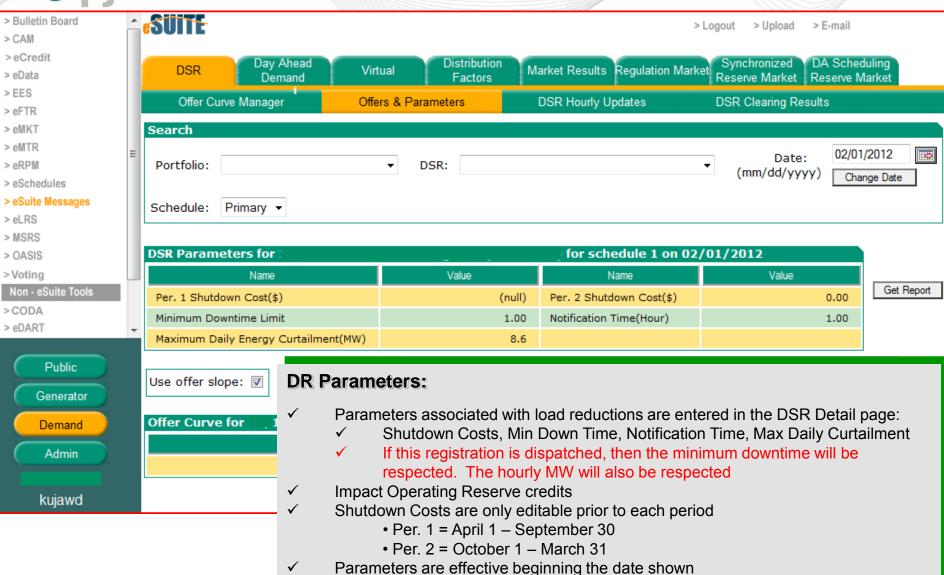


Example of Incremental Offer (Slope vs. Block)



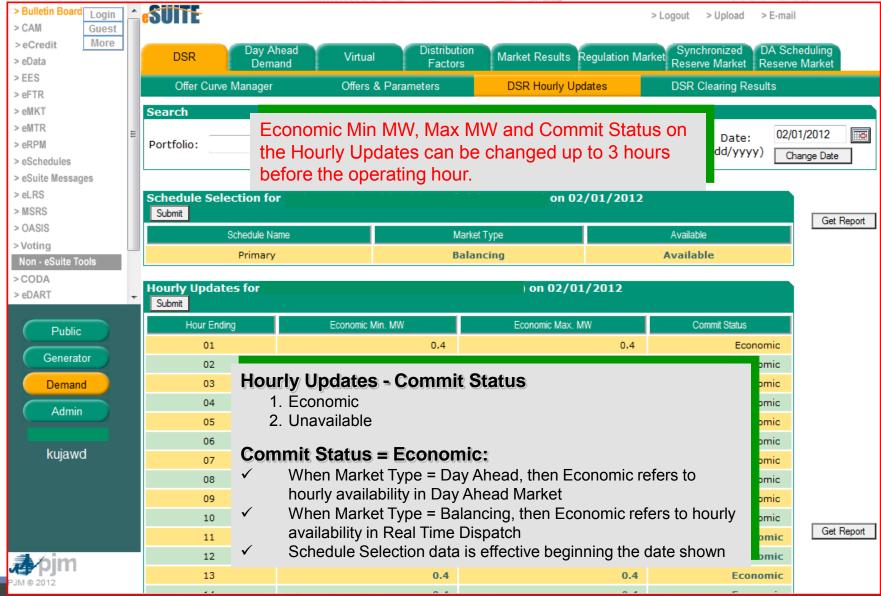


DR Parameters and Offer Curve





Schedule Selection and Hourly Updates





DA Offer for Demand Response

CSTF September 24, 2013

PJM©2013



Day Ahead Must Offer for Capacity Demand Resources

- All Demand Resources that are considered capacity for PJM would be required to submit an offer into the energy market
- Applicable during the mandatory compliance period for that product
- Could be "Economic" or "Emergency"
 - Depending on criteria



Add similar criteria for demand resources

- Tariff Attachment K, 1.10.1A(d)
 - i) Environmental limits. If the resource has a limit on its run hours imposed by a federal, state, or other governmental agency that will significantly limit its availability, on either a temporary or long-term basis. This includes a resource that is limited to operating only during declared PJM capacity emergencies by a governmental authority.
 - Fuel limits. If physical events beyond the control of the resource owner result in the temporary interruption of fuel supply and there is limited onsite fuel storage. A fuel supplier's exercise of a contractual right to interrupt supply or delivery under an interruptible service agreement shall not qualify as an event beyond the control of the resource owner.
 - Temporary emergency conditions at the unit. If temporary emergency physical conditions at the resource significantly limit its availability.
 - Temporary megawatt additions. If a resource can provide additional megawatts on a temporary basis by oil topping, boiler over-pressure, or similar techniques, and such megawatts are not ordinarily otherwise available.



- Resources not meeting the emergency criteria would be required to register in the economic program
- Due by noon the day before the operating day
 - Offer price applying to all 24 hours
 - Hourly parameters
 - Availability
 - MW Capability



- An economic DR resource is eligible for an operating reserve uplift payment if
 - Committed by PJM
 - Follows dispatch
 - Does not make back its cost
- Economic DR resources are charged for BOR if they cannot comply when dispatched



- Provisions to make DR resources whole exist in the Tariff
 - OR/BOR for economic resources
 - Allocation the real-time net purchasers for emergency demand resources
- Existing methodologies can be used for cost allocations

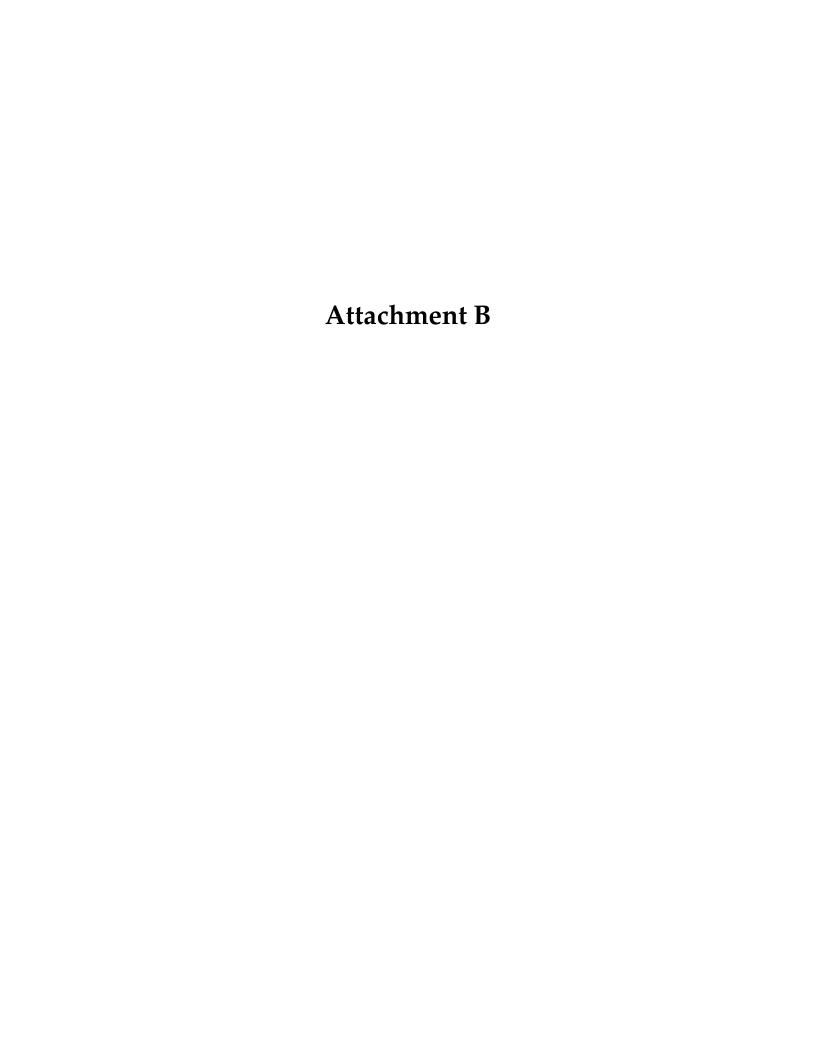


Capacity

Cap capacity capability at PLC level

Energy

- Maintain use of CBL
- Possible implications on capacity value due to energy non-performance?



UNITED STATES OF AMERICA FEDERAL ENERGY REGULATORY COMMISSION

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Independent Market Monitor for PJM)	
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V.)	Docket No. EL14000
DDA Latarra and L. I. C.)	
PJM Interconnection, L.L.C.)	
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NC	OTICE OF COMPLAINT	
	(, 2014)	

Take notice that on January 27, 2014, pursuant to section 206 of the Rules and Practice and Procedure of the Federal Energy Regulatory Commission (Commission), 18 CFR § 385.206 (2013), Monitoring Analytics, LLC, acting in its capacity as the Independent Market Monitor for PJM ("Market Monitor), filed a formal complaint against PJM Interconnection, L.L.C. ("PJM") requesting that the Commission direct PJM to include rules in the tariff that provide: (i) a requirement that DR must offer daily into the PJM Day-Ahead Energy Market, and (ii) a cap on offers from DR at \$1,000 per MWh, consistent with the offer cap applicable to Generation Capacity Resources.

The Complainant states that copies of the complaint were served on representatives of PJM and served to the parties in Docket No. ER14-822-000.

Any person desiring to intervene or to protest this filing must file in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211, 385.214). Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a notice of intervention or motion to intervene, as appropriate. The Respondent's answer and all interventions, or protests must be filed on or before the comment date. The Respondent's answer, motions to intervene, and protests must be served on the Complainants.

The Commission encourages electronic submission of protests and interventions in lieu of paper using the "eFiling" link at http://www.ferc.gov. Persons unable to file electronically should submit an original and 14 copies of the protest or intervention to the Federal Energy Regulatory Commission, 888 First Street, NE, Washington, DC 20426.

This filing is accessible on-line at http://www.ferc.gov, using the "eLibrary" link and is available for review in the Commission's Public Reference Room in Washington, DC. There is an "eSubscription" link on the web site that enables subscribers to receive email notification when a document is added to a subscribed docket(s). For assistance with any FERC Online service, please email ferc.gov, or call (866) 208-3676 (toll free). For TTY, call (202) 502-8659.

Comment Date: 5:00 pm Eastern Time on _____, 2014.

Kimberly D. Bose, Secretary