



Order 831 Offer Validation for Demand Response: Enhancements to DR Hub and Markets Gateway

DRS

September 22, 2017



Demand Response (Economic and Load Management):

Default Energy Offer Cap

- \$1000 is the default Energy Offer Cap for both Economic and Load Management registrations

Incremental Cost Validation

- Member validation of Incremental Costs with supporting documentation above \$1,000 in DR Hub

Ongoing Member management of offers





- Member monitors offers on a hourly basis to ensure any offers above \$1000 have supporting documentation

- On Nov. 1, 2017 (implementation date), PJM will:
 - Load Management DR Full registrations
 - Update all Offer (Strike) Prices over \$1000 to \$1000
 - Example
 - Current Offer Price = \$1849, will change to \$1000
 - Current Offer Price = \$500, no change
 - Offer (Strike) Prices will no longer be capped by the Lead Time selected on the registration
 - Economic registrations
 - Max energy offer cap in Markets Gateway restricted to \$1000

- DR cost validation process is the same for both Economic DR and Load Management in DR Hub
- Offers greater than \$1,000, Market Seller must enter and validate incremental cost *prior to the operating day*:
 1. Provide summary and details of incremental costs
 2. Upload the supporting documentation that details how incremental cost were calculated and associated validation
- Offers less than \$1,000, no validation is required (considered “price based”)
- Offers above \$2,000 may be submitted, but can not be used to set LMPs

- Example: Injection Molding Company with offer price= \$1,150

Add New Line

Actions		Incremental Cost Description	Incremental Cost (\$/Mwh)
 	1	Labor cost – employees sent home with pay, no work/product produced	\$900.00
 	2	Damaged product net cost - Product cannot be sold and material needs to be recycled (ie: bottle caps in injection molds damaged and need to be recycled). Net cost = Cost to make product minus recycle value.	\$250.00
Incremental Cost Summary			\$1,150.00

Supporting Documentation

I certify that I have verified and documented the registration’s incremental cost in detail as summarized above and in compliance with PJM rules. 08/24/2017 12:20 PM Last Certified Date

Save Cancel

- Max Offer Cap is set to \$1000 or the Incremental Cost Summary amount if > \$1000
- Can enter up to 5 different incremental costs with associated descriptions
- Updating the Incremental Cost summary will uncheck the Certification checkbox
- Must click Certification Checkbox each time the Incremental Cost summary screen is saved
- On Save, time/date stamp is put on Certification
- May set Incremental Cost to \$0 without deleting Description
- If Incremental Cost Summary is > \$1000, there must be at least 1 supporting document uploaded by CSP
- Registration History will record any changes to the Energy Offer Cap and the Offer Validation screen

Registration Detail

Tasks | Locations | **Registrations** | Events | Meter Data | Energy Settlements | Compliance | Dispatch Groups | Account and Users | Reports | RERRA

Cancel | Save | Change End Date | Copy | Extension | Search | Resource Outage

Name * CSP IGSHE Status **CONFIRMED**

Reg ID Program * Hold Scheduling Hold Settlement

Effective Date * Termination Date *

EDC ZONE LSE Pricing Point

Residential Registration?

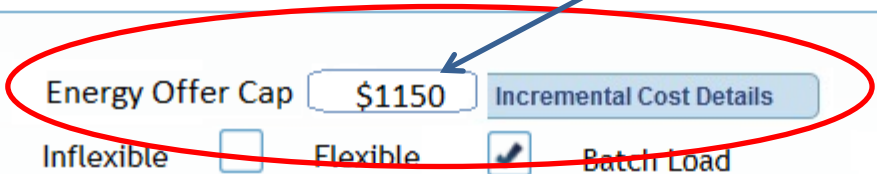
Markets

RT Energy DA Energy Energy Offer Cap

Synchronized Reserve Inflexible Flexible Batch Load

Regulation DA Scheduling Reserve

Energy Offer Cap:
If Incremental Cost Details <\$1000 (or none), display \$1000, otherwise display Incremental Cost Summary



Registration Detail

[Tasks](#) [Locations](#) **[Registrations](#)** [Events](#) [Meter Data](#) [Energy Settlements](#) [Compliance](#) [Dispatch Groups](#) [Account and Users](#) [Reports](#) [RERRA](#)

[Cancel](#) [Save](#) [Copy](#) [Search](#) [Resource Outage](#)

Name * CSP Status

Reg ID Program * Hold Scheduling Hold Settlement

Effective Date * Termination Date * Allow Modification EDC LSE

EDC ZONE Pricing Point

Test Required Completed

Capacity

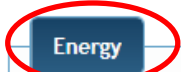
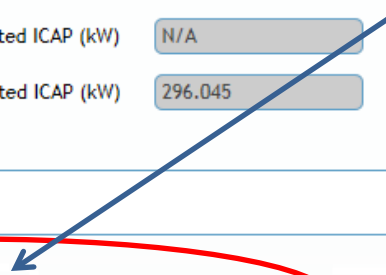
Peak Load Contribution (kW)	<input type="text" value="380.28"/>	Winter Peak Load (kW)	<input type="text" value="N/A"/>
Measurement Method	<input type="text" value="Firm Service Level"/>	Winter Managed Load (kW)	<input type="text" value="N/A"/>
Summer Managed Load (kW)	<input type="text" value="78.000"/>	Winter Weather Adj. Factor	<input type="text" value="N/A"/>
Capacity Loss Factor	<input type="text" value="1.07993"/>	Winter Nominated ICAP (kW)	<input type="text" value="N/A"/>
Summer Nominated ICAP (kW)	<input type="text" value="296.045"/>	Annual Nominated ICAP (kW)	<input type="text" value="296.045"/>

Lead Time

Energy

Offer Price (\$/Mwh) **Energy Offer Cap** [Incremental Cost Details](#) Shut Down Costs (\$)

Energy Offer Cap:
 If Incremental Cost Details <\$1000 (or none), display \$1000, otherwise display Incremental Cost Summary



- Energy Offer Cap is \$1000, unless Incremental Costs are provided in DR Hub and support higher cap
- Changes to the Energy Offer Cap are transferred to Markets Gateway *the next calendar day*

Example: Incremental Costs documented on 11/13/2017 in DR Hub

- 11/14/2017 Updated Energy Offer Cap available
 - for Real-Time offers same day
 - for Day-Ahead offers for next day (11/15/2017)

- CSPs should manage their offers *up to* the Energy Offer Cap
 - Any offer over \$1000 must have incremental cost documentation that supports the offer time period
 - If CSP lowers their Energy Offer Cap, and has previously copied offers in Markets Gateway over the new Energy Offer Cap for future days, the CSP must take action to lower the future offers to the new Energy Offer Cap
 - PJM intends to audit on periodic basis and any issues with supporting documentation will be escalated to IMM/FERC Office of Enforcement for further investigation, as necessary

DR Full (includes energy payment) - Energy Offer Cap

- Energy Offer Cap is \$1000, unless Incremental Costs are provided and support higher cap
- Updated Energy Offer Cap available the next calendar day
- CSPs should manage their energy offers (previously referred to as “strike price”) *up to* the Energy Offer Cap
 - Any offer over \$1000 must have incremental cost documentation that supports the offer time period
 - PJM intends to audit on periodic basis and any issues with supporting documentation will be escalated to IMM/FERC Office of Enforcement for further investigation, as necessary