

### Cost & Price Schedules

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### **Generation Offer Types**

- Price-based offers
- Cost-based offers
- Price Based offers and Cost Based offers consist of the following:
  - Incremental Offers for Energy (\$/MWh)
  - Start-up Cost (\$/start)
  - No-load Cost(\$/hr)



- Price Based offers
  - Incremental, start-up, and no-load offers are not limited to cost.
- Cost Based offers
  - Based on Cost Development Guidelines (Manual 15) plus 10% adder
- All Incremental offers (Price and Cost) are capped at \$1000 per the Operating Agreement

3



# Offer Components

	Incremental Offers	<b>Production Costs</b>	Operation Parameters
Price Offer	No Limits *Capped at \$1000/MWh	No Limits	No Limits
Cost Offers	Cost plus 10% adder	Cost plus 10% adder	Parameter Limited Schedule
PLS Offer (HWA, CWA, MaxE)	No Limits *Capped at \$1000/MWh	No Limits	Parameter Limited Schedule





Units must have at least one Cost-Based Schedule available

- 1.Cost-based Schedule must be Parameter Limited
- 2.Two Price-based Schedules, one of which must be Available
  - a) Non Parameter Limited
  - b) Parameter Limited



- Generation resources shall submit and be subject to pre-determined limits on non-price offer parameters ("parameter limited schedules")
- Parameter-Limited Schedules are limitations that could be imposed on the parameters that generators submit as part of their offer
- PJM posts unit class specific parameter limits in Section 6.6 of Schedule 1 in the Operating Agreement

6



## **Changing Offer Components**

	Cost Based Offer	Price Based Offer
Start-up (hot, intermediate, and cold) (\$/start)	Can be changed daily	Optional – Can be changed once every 6 months (on or before March 31 and September 30)
No Load (\$/hr)	Can be changed daily	Optional – Can be changed once every 6 months (on or before March 31 and September 30)
Incremental Cost (\$/MWh)	Can be changed daily - Energy from min to max	Can be changed daily - Energy from 0 to max



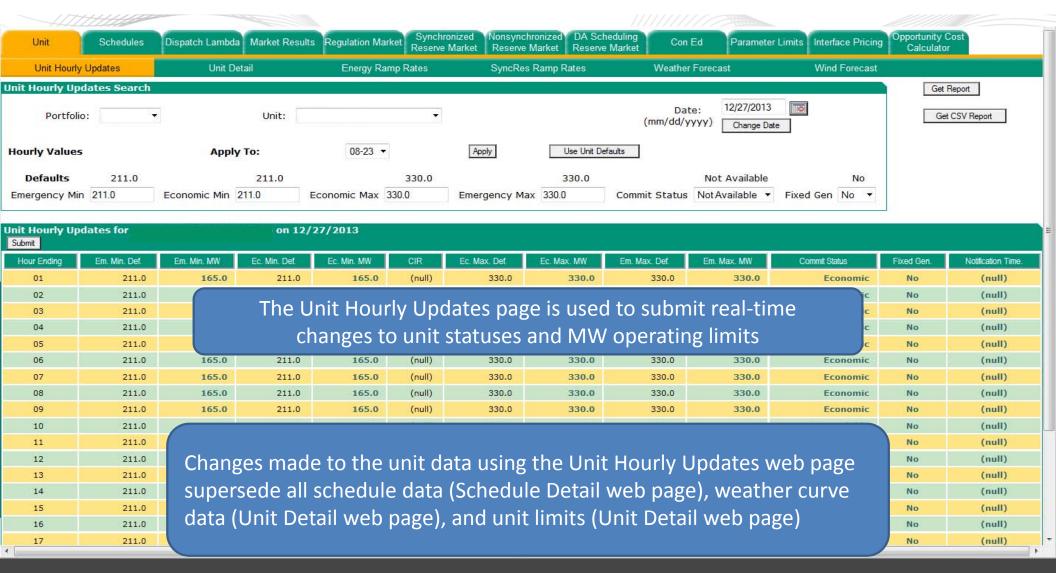
#### Changing between Cost and Price Offers

- The choice between using cost-based and price-based startup and no-load fees can be made twice a year during the same open enrollment window (on or before 1200 hours March 31 for the period April 1 through September 30 and on or before 1200 hours September 30 for the period October 1 through March 31).
- If a price based unit chooses the cost-based Startup and no-load fees option, the decision cannot be changed until the next open enrollment period takes place.



Pages: 12345 Next

Parameter Limits								
	Location		Description	Minimum Runtime	Minimum Downtime	Maximum Daily Starts	Maximum Weekly Starts	Turndown Ratio
	Steamer 1		Steamer 1	24	48	1	1	2.00
	Steamer 2		Steamer 2	24	84	1	11	1.39
	Steamer 3		AEP CARDINAL 2	24	84	1	1	1.39
	Steamer 4		Parameter Limits:					8
	Steamer 5					_		
	Steamer 6		Parameters limits are determined on a unit-class basis and are assigned to each unit for the			0		
	Big CC 1		following schedule parameters:		0			
	Big CC 2							0
	Big CT 1		<ul> <li>Minimum Downtime</li> </ul>					0
	Big CT 2		<ul> <li>Minimum Runtime</li> </ul>					0
			<ul> <li>Maximum Daily Starts</li> </ul>					
			<ul> <li>Maximum Weekly Starts</li> </ul>					
			<ul> <li>Turn Down Ratio - ratio of economic maximum MW to economic minimum MW</li> </ul>					





Operating Scenario	PJM Selected Schedule			
Normal Operations	Generators continue on their Price Schedule and non- limited parameters			
Generator fails the Three Pivotal Supplier Test (TPS)	Generators are placed on the lower production cost of the cost schedule or price schedule			
Max Emergency Alert, loading, etc.	Generators are committed on their price based parameter limited schedules			