

# Reactive Services Issue

DA Reliability and  
Reactive Cost  
Allocation

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# Reactive Services

- Reactive service credits are paid to units for the purpose of maintaining the reactive reliability of the PJM region if the output of such unit is reduced or suspended at the request of PJM in order to provide reactive, and the LMP at the unit's bus is higher than its offered price.
- These reactive service charges are allocated daily to real-time deliveries of energy to load in the transmission zone where the reactive service was provided.



# Reactive Services

- Payments for reactive service are made to resources if their output is increased at the request of PJM for the purpose of providing reactive services and the offered price is higher than the LMP at the unit's bus. **(Current Issue).**
- A portion of these costs of providing reactive services is paid by real-time deliveries of energy to load in the transmission zone where the service was provided.
- A portion of these costs of providing reactive services is also paid by deviations and real-time load plus exports as balancing operating reserve charges



# Reactive Services Issue

- The issue is that not all the costs of reactive service are allocated consistent with the tariff defined allocation of reactive service costs.
- The current reactive service credit calculation only takes into account the resource incremental offer to determine the make whole payment. It does not consider the no load cost, startup cost nor the entire offer curve.



# Misallocated Cost of Reactive Services

- In 2012, units providing reactive services were paid \$21.9 million of balancing operating reserve credits in order to cover their total energy offer.
  - 92.1 percent paid by deviations in the RTO Region.
  - 6.4 percent paid by real-time load and real-time exports in the RTO Region.
  - 0.8 percent paid by deviations in the Western Region.
  - 0.5 percent paid by deviations in the Eastern Region.
  - 0.3 percent paid by real-time load and real-time exports in the Western Region.

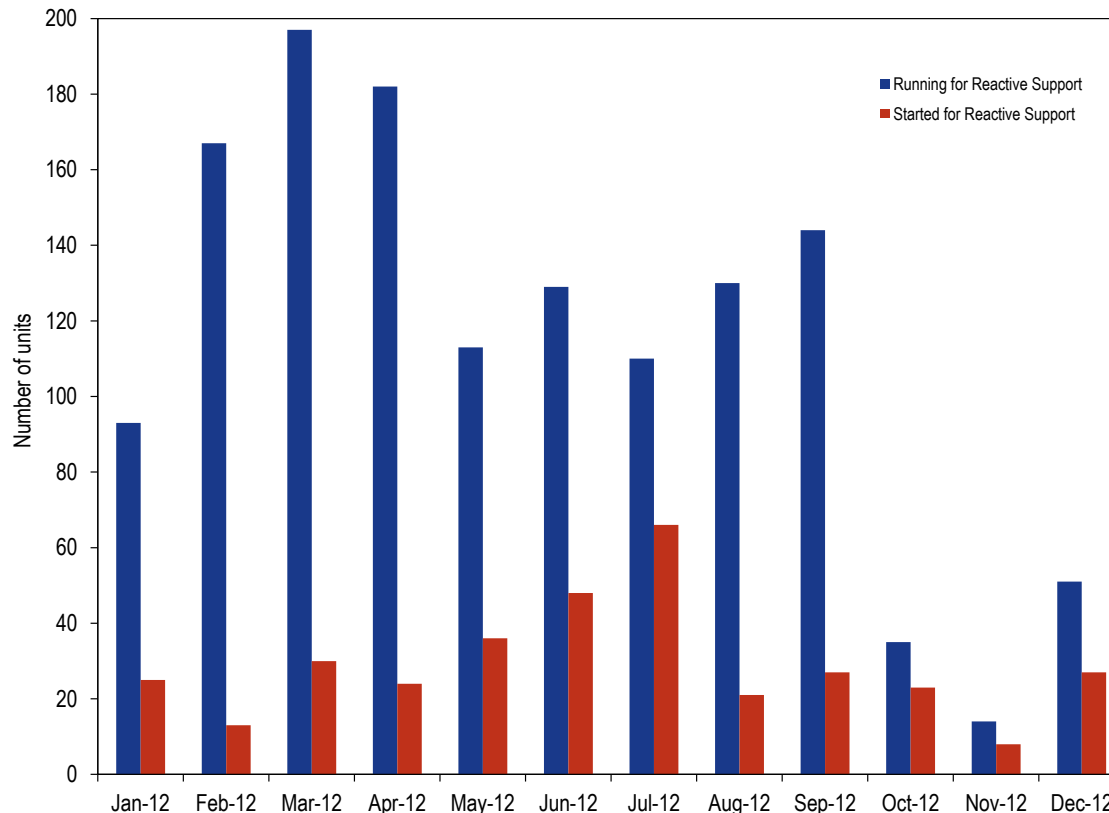


# Impact on BOR Rates

Balancing Operating Reserve Rates (\$/MWh)			Impact		
Category	Region	Without Credits to Units Providing Reactive Services	Current	(\$/MWh)	Percentage
		Reliability	RTO	0.0227	0.0245
	East	0.0219	0.0219	0.0000	0.0%
	West	0.1152	0.1154	0.0001	0.1%
Deviation	RTO	0.6754	0.8147	0.1394	20.6%
	East	0.3319	0.3332	0.0013	0.4%
	West	0.1239	0.1265	0.0026	2.1%

# Location and Units

- In 2012, the DPL, ATSI and PENELEC control zones received 62.5 percent of all reactive service credits.
- Units committed in real time to provide reactive services:



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