Reactive Services Credits Proposal Details

DA Reliability and Reactive Cost Allocation

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Joel Romero Luna

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Proposal

- **The total cost of providing reactive support should be categorized and allocated as reactive services.**

- **Reactive services credits should be calculated consistent with operating reserve make whole payments.**

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Proposal Details

- **Reasons to calculate reactive services credits using the BOR methodology:**

  - **To eliminate the use of an inconsistent hourly calculation of make whole payments based on the incremental offer and not the full offer curve.**

  - **To take into account periods of operation, not hours.**

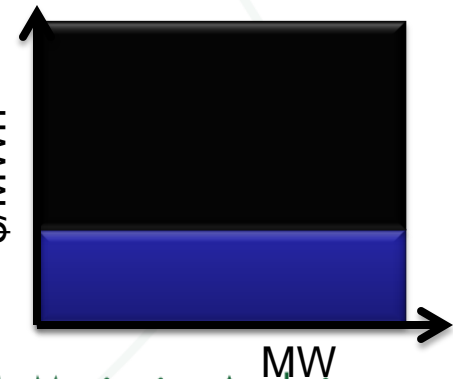Monitoring Analytics
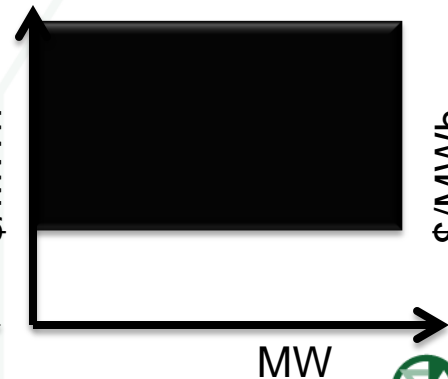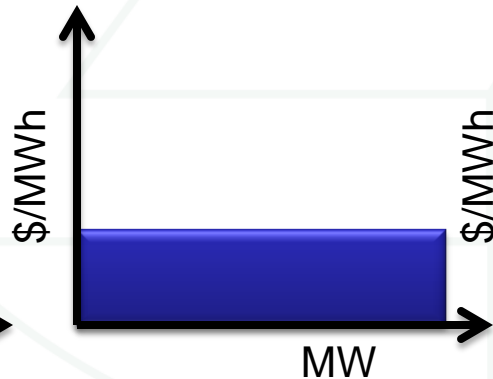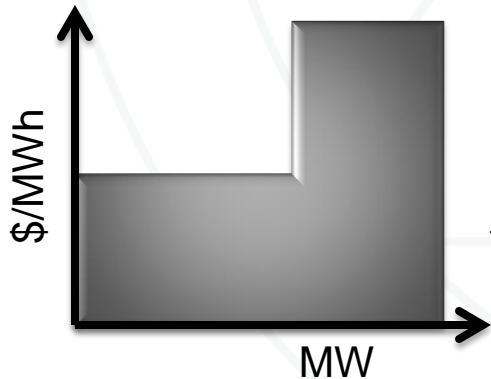
Incremental vs. Full Offer Issue

Current reactive services credits calculation is based on the incremental offer:

| Full Offer = Amount that needs to be made whole | Energy Revenues = Output x LMP | Current Reactive Make Whole (Based on Incremental) | Total Revenues |

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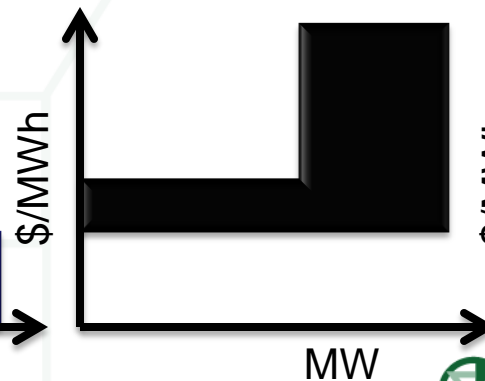# Incremental vs. Full Offer Issue

Proposal is based on the current BOR make whole calculation (based on the full offer curve):

Full Offer = Amount that needs to be made whole

Energy Revenues = Output x LMP

Proposed Make Whole (Like BOR)

Total Revenues

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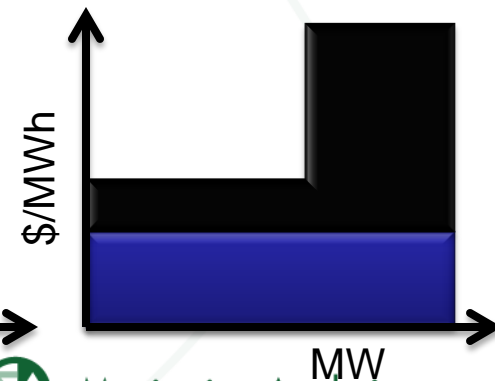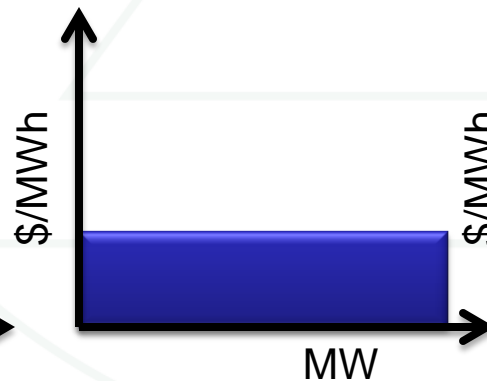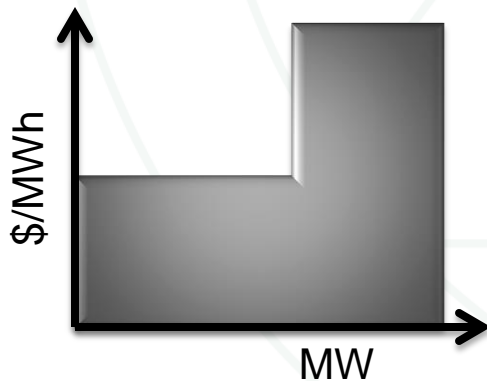
Hourly vs. Segmented Issue

- **Current make whole payments through BOR are aggregated by segments.**

- **This means that hours with revenues above total offer may offset other hours with revenues below total offer if the hours are within the same segments. There is no offsetting between segments.**

- **The BOR segments are defined by:**
  - **Day-ahead scheduled hours**
  - **Minimum run time**
  - **Hours outside day-ahead scheduled hours or beyond minimum run time**

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Hourly vs. Segmented Issue

- **Current make whole payments through reactive services are calculated hourly.**

- **This means that hours with revenues above energy offer (not total offer) DO NOT offset other hours with revenues below energy offer (not total offer).**

- **Currently if a unit is called for reactive services, the energy offer is covered by reactive services credits and no load and startup costs are covered by BOR credits.**

- **This means that revenues above total offer are used to offset no load and startup costs.**

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Hourly vs. Segmented Issue

Example: Unit called for reactive for two hours.

Current Rules

Hour	Offer ($/MWh)	LMP ($/MWh)	Output (MWh)	Reactive Credit
1	100	50	100	$5,000
2	100	130	100	$0
3	100	50	0	$0
Total			200	$5,000

Unit total revenues add up to $23,000, $500 more than total offer.

Hour	Energy Offer	No Load Cost	Startup Cost	Total Offer	Energy Revenues	Reactive Offset	BOR Credit
1	$10,000	$1,000	$500	$11,500	$5,000	$5,000	NA
2	$10,000	$1,000	$0	$11,000	$13,000	$0	NA
3	$0	$0	$0	$0	$0	$0	NA
Total	$20,000	$2,000	$500	$22,500	$18,000	$5,000	$0

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Hourly vs. Segmented Issue

Proposal

Hour	Energy Offer	No Load Cost	Startup Cost	Total Offer	Energy Revenues	Reactive Credit
1	$10,000	$1,000	$500	$11,500	$5,000	NA
2	$10,000	$1,000	$0	$11,000	$13,000	NA
3	$0	$0	$0	$0	$0	NA
Total	$20,000	$2,000	$500	$22,500	$18,000	$4,500

Unit receives $22,500 same amount as total offer, $500 less than current calculation.

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Proposal Impact

- **Reduction of make whole payments due to:**
  - **Elimination of inconsistent over compensation in current reactive make whole calculation**
  - **Make whole payment offsets within segments**

- **Changes in the allocation of no load and startup costs make whole:**
  - **Increase/reduction of charges to real-time load**
  - **Reduction of charges to all other transactions that deviate**

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Make Whole Payment Impact

- **Make whole payments to units providing reactive services in real time from Oct 2012 – May 2013 totaled $23 million (67% paid as reactive credits 33% as BOR credits).**

  - **Impact of eliminating inconsistent over compensation: $1.7 million.**

  - **Impact make whole payment offsets within segments: $0.2 million.**

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Allocation Impact

- **The proposal shifts charges from BOR to reactive services.**

- **Impact on BOR charges: -$6.1 million**

- **Impact on reactive services charges: $4.2 million**

- **The difference is the reduction due to:**
  - **Elimination of inconsistent over compensation**
  - **Make whole payment offsets within segments**

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Allocation Impact

- **Change in reactive services costs (only units called in real-time, units scheduled in day ahead not included) from October 2012 through May 2013:**
  - **RTO wide impact: Increase of $0.009 per MWh of RT load.**
  - **Top three zonal impact:**
    - **1) $0.027 per MWh**
    - **2) $0.026 per MWh**
    - **3) $0.023 per MWh**

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Allocation Impact

BOR rates affected. From October 2012 through May 2013.

BOR Charge	Actual Rate ($/MWh)	Rate with Proposal ($/MWh)	Change ($/MWh)	Change (Percent)
RTO Reliability	0.044	0.040	(0.004)	(8.2%)
RTO Deviation	0.738	0.689	(0.048)	(6.6%)
East Deviation	2.573	2.572	(0.001)	(0.1%)
West Deviation	0.113	0.108	(0.005)	(4.2%)

Monitoring Analytics

Monitoring Analytics, LLC

2621 Van Buren Avenue

Suite 160

Eagleville, PA

19403

(610) 271-8050

MA@monitoringanalytics.com

www.MonitoringAnalytics.com

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