

# MSRS Report Updates – PRD and RPM Seasonal Capacity

Sean Flamm Market Settlements Development Market Settlements Subcommittee May 21<sup>st</sup>, 2020





- 3 new reports created
  - LSE PRD Credits
  - PRD Commitment Compliance Penalty Charges
  - PRD Commitment Compliance Penalty Credits
- Updates to 3 existing reports
  - Operating Reserve Deviation Summary 5 Minute
  - Operating Reserve Deviation Summary
  - RPM Auction Credits



### LSE PRD Credits

- New report to support new BLI 2625 LSE PRD Credit
- Reports organization's LSE PRD Credit for each related PRD registration

Online and CSV Column Name	XML Column Name	Column	Data Type
		Number	
Customer ID	CUSTOMER_ID	4000.01	INTEGER
Customer Code	CUSTOMER_CODE	4000.02	VARCHAR2(6)
Date	DATE	4000.04	DATE (MM/DD/YYYY in
			online and CSV formats,
			YYYY-MM-DD in XML
			format)
PRD Registration ID	PRD_REGISTRATION_ID	4001.43	INTEGER
PRD Registration Name	PRD_REGISTRATION_NAME	4001.44	VARCHAR2(60)
Zone/Sub-Zone	ZONE_SUB_ZONE	4001.39	VARCHAR2(20)
PRD Registration MW	PRD_REGISTRATION_MW	2625.11	NUMBER
LSE PRD Credit (\$)	LSE_PRD_CREDIT	2625.01	NUMBER
Version	VERSION	4000.07	VARCHAR2(12)

The following columns will appear in the body of the report:

This report does not have any calculated values that are supported purely by other columns on this report.



## **PRD** Commitment Compliance Penalty Charges

- New report to support new BLI 1669 PRD Commitment Compliance Penalty Charge
- Reports organization's PRD Commitment Compliance Penalty Charge for total PRD deficient MW in each zone or sub-zone and for each commitment type
- Additional PRD commitment details are available in PJM's Capacity Exchange tool

The following columns will appear in the body of the report:

Online and CSV Column Name	XML Column Name	Column	Data Type
		Number	
Customer ID	CUSTOMER_ID	4000.01	INTEGER
Customer Code	CUSTOMER_CODE	4000.02	VARCHAR2(6)
Date	DATE	4000.04	DATE (MM/DD/YYYY in
			online and CSV formats,
			YYYY-MM-DD in XML
			format)
Zone/Sub-Zone	ZONE_SUB_ZONE	4001.39	VARCHAR2(50)
Commitment Type	COMMITMENT_TYPE	4001.45	VARCHAR2(20)
Deficiency MW	DEFICIENCY_MW	3001.26	NUMBER
Deficiency Rate (\$/MW)	DEFICIENCY_RATE	3001.35	NUMBER
PRD Commitment Compliance	PRD_CMMT_COMP_PEN_CH	1669.01	NUMBER
Penalty Charge (\$)			
Version	VERSION	4000.07	VARCHAR2(12)

### **Supporting Calculations**

PRD Commitment Compliance Penalty Charge = Deficiency MW \* Deficiency Rate 1669.01 = 3001.26 \* 3001.35

Commitment Type: RPM FRR



## **PRD** Commitment Compliance Penalty Credits

- New report to support new BLI 2669 PRD Commitment Compliance Penalty Credit .
- Reports organization's PRD Commitment Compliance Penalty Credit allocated from PRD . **Commitment Compliance Penalty Charges**

Online and CSV Column Name	XML Column Name	Column	Data Type
		Number	
Customer ID	CUSTOMER_ID	4000.01	INTEGER
Customer Code	CUSTOMER_CODE	4000.02	VARCHAR2(6)
Date	DATE	4000.04	DATE (MM/DD/YYYY in
			online and CSV formats,
			YYYY-MM-DD in XML
			format)
Total PJM PRD Commitment	TOT_PJM_PRD_CC_PEN_CH	2669.11	NUMBER
Compliance Penalty Charges (\$)			
Auction Credits (\$)	AUCTION_CREDITS	2669.12	NUMBER
Deficiency Charges (\$)	DEFICIENCY_CHARGES	2669.13	NUMBER
Total PJM Auction Credits –	TOT_PJM_AUCCR_DEFCH	2669.14	NUMBER
Deficiency Charges (\$)			
PRD Commitment Compliance	PRD_CMMT_COMP_PEN_CR	2669.01	NUMBER
Penalty Credit (\$)			
Version	VERSION	4000.07	VARCHAR2(12)

The following columns will appear in the body of the report:

### Supporting Calculations

PRD Commitment Compliance Penalty Credit = Total PJM PRD Commitment Compliance Penalty Charges \* MAX(Auction Credits -Deficiency Charges, 0) / Total PJM Auction Credits - Deficiency Charges

2669.01 = 2669.11 \* MAX (2669.12 - 2669.13, 0) / 2669.14



## **PRD Balancing Operating Reserve Deviations**

### • Manual 11 section 12.2.5

### 12.2.5 Balancing Operating Reserves Deviations

While PJM will not send dispatch signals to PRD load, PRD load that reduces consumption in real time in response to price will be viewed as having "followed dispatch instructions" and therefore does not accrue Balancing Operating Reserve (BOR) deviations for the reduced demand.

- PJM sums an LSE's total fixed and price sensitive demand cleared in the Day-Ahead market in each zone.
- PJM sums the LSE's total real time load in each zone.
- The LSE does not accrue BOR deviations for the amount by which the Day-Ahead cleared price sensitive demand exceeds the real time load minus the Day-Ahead fixed demand if the LSE has PRD load in the given zone, and:
  - the Real-Time LMP at the PNODEs where such PRD was modeled for a given hour is higher than the Day-ahead LMP at those PNODEs for that hour, and
  - the LSEs real time load minus its Day-Ahead fixed demand is less than the LSE's Day-Ahead cleared price sensitive demand in that zone.



## **Operating Reserve Deviation Summary – 5 Minute**

• New column 1375.65 RT PRD Offset (MW) added to capture offset value for PRD

Online and CSV Column Name	XML Column Name	Column Number	Data Type
RT PRD Offset (MW)	RT_PRD_OFFSET	1375.65	NUMBER

- Supporting Calculation for RT Operating Reserve Withdrawal updated to included RT PRD Offset
  - RT Operating Reserve Withdrawal = RT Load + Load Reconciliation Energy + RT Operating Reserve Exports + RT Internal Bilateral Sales + RT PRD Offset

1375.32 = 3000.38 + 3000.77 + 1375.30 + 1375.31 + 1375.65



### **Operating Reserve Deviation Summary**

• New column 1375.65 RT PRD Offset (MWh) added to capture offset value for PRD

Online and CSV Column Name	XML Column Name	Column Number	Data Type
RT PRD Offset (MWh)	RT_PRD_OFFSET	1375.65	NUMBER

- Supporting Calculation for RT Operating Reserve Withdrawal updated to included RT PRD Offset
  - RT Operating Reserve Withdrawal = RT Load + Load Reconciliation Energy + RT Operating Reserve Exports + RT Internal Bilateral Sales + RT PRD Offset

1375.32 = 3000.38 + 3000.77 + 1375.30 + 1375.31 + 1375.65

 Values on Operating Reserve Deviation Summary are hourly averages of the sub-hourly values on the Operating Reserve Deviation Summary – 5 Minute report



## **RPM Seasonal Capacity Performance Auction Credit**

- New Billing Line Item to capture RPM auction credits paid to Seasonal Capacity Performance Resources – RPM Seasonal Capacity Performance Auction Credit (2605).
- Cleared Seasonal Capacity Performance-Summer sell offer segments will receive daily credit for June through October and May of applicable delivery year.
- Cleared Seasonal Capacity Performance-Winter sell offer segments will receive daily credit for November through April of applicable delivery year.
- Charges for RPM Seasonal Capacity Performance Auction Credit will be included in the Locational Reliability Charge line item.



### **RPM** Auction Credits

- Added new columns Season and RPM Seasonal Capacity Performance Auction Credit
- Updated Supporting Calculations section to include 6/1/2020 effectivity note and equations

The following columns will appear in the body of the report:

Online and CSV Column Name	XML Column Name	Column	Data Type
		Number	
Customer ID	CUSTOMER_ID	4000.01	INTEGER
Customer Code	CUSTOMER_CODE	4000.02	VARCHAR2(6)
Date	DATE	4000.04	DATE (MM/DD/YYYY in
			online and CSV formats,
			YYYY-MM-DD in XML
			format)
Resource ID	RESOURCE_ID	4001.21	INTEGER
Resource Name	RESOURCE_NAME	4001.22	NUMBER(22)
RPM Auction	RPM_AUCTION	4001.23	VARCHAR2(20)
Product Type	PRODUCT_TYPE	4001.36	VARCHAR2(30)
Season	SEASON	4001.55	VARCHAR2(15)
Cleared Capacity (MW)	CLEARED_CAPACITY	1600.11	NUMBER(11,3)
Capacity Price (\$/MW)	CAPACITY_PRICE	3001.22	NUMBER(8,2)
RPM Auction Credit (\$)	RPM_AUCTION_CREDIT	2600.01	NUMBER(22,2)
Make-Whole MW	MAKE_WHOLE_MW	2600.11	NUMBER(11,3)
Make-Whole Price (\$/MW)	MAKE_WHOLE_PRICE	2600.12	NUMBER(8,2)
RPM Auction Make-Whole Credit (\$)	RPM_AUCTION_MAKE_WHOLE_CREDIT	2600.02	NUMBER(22,2)
RPM Seasonal Capacity	RPM_SNL_CAP_PERF_AUC_CR	2605.01	NUMBER(22,2)
Performance Auction Credit (\$)			
Version	VERSION	4000.07	VARCHAR2(12)

#### For trade dates 6/1/2020 and forward:

For ANNUAL Season types:

RPM Auction Credit = Cleared Capacity \* Capacity Price

2600.01 = 1600.11 \* 3001.22

RPM Seasonal Capacity Performance Auction Credit = 0

For SUMMER and WINTER Season types:

RPM Auction Credit = 0

RPM Seasonal Capacity Performance Auction Credit = Cleared Capacity \* Capacity Price

2605.01 = 1600.11 \* 3001.22

RPM Auction Values: BASE FIRST SECOND CP TRANSITION <u>Product Type Values:</u> BASE BASE DR/EE CAPACITY PERFORMANCE Season Values: ANNUAL SUMMER WINTER