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**MSRS Report Format Documentation**

**Operating Reserve Lost Opportunity Cost Credits**

**Version 8**

Revision History

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| --- | --- | --- |
| **Date** | **Revision** | **Description** |
| 10/01/2007 | 1 | Initial Distribution |
| 5/5/2008 | 2 | Added new Offset for Reg High < LMP Desired column |
| 5/30/2008 | 3 | Updated MWh Reduced calculation |
| 8/1/2008 | 4 | Updated XML column name for Offer at RT MWh column from OFFER\_DA\_MWH to OFFER\_RT\_MWH |
| 4/16/2012 | 5 | Add new Wind Forecast MWh column |
| 10/27/2015 | 6 | Updated Summary of Changes and Special Logic to give detail for trade dates 9/1/2015 Forward. |
| 1/21/2016 | 7 | Updated Data Type for Offer at DA MWh ($/MWh) and Offer at RT MWh ($/MWh); Updated Summary of Changes and Special Logic for details on the data type update |
| 2/21/2020 | 8 | Removed all references to eSchedule(s) and/or eSchedule(s) reports. |

# Report

**MSRS** Report Name: Operating Reserve Lost Opportunity Cost Credits

Report short name for User Interface: Operating Reserve Lost Opportunity Cost Credits

Download File Name Abbreviation: ORLOCCr

Data Granularity: Hourly

Frequency: Updated daily

Range Displayed on Report: Start Date through End Date

# Supported Billing Line Items

* Balancing Operating Reserve Credit (2375)

# Report Content Summary

This report displays the customer account’s hourly operating reserve lost opportunity cost credit for each generation unit that the customer owns or jointly owns. Data will display on this report when the unit has DA Scheduled MWh or RT Generation MWh and the unit is eligible for lost opportunity cost credits.

The credits in this report do not reflect the customer account’s share of jointly owned units. All owners will see the full credit assigned to the unit.

# Summary of Changes and Special Logic

* The date range total row will only appear in the online version of the report. It will not appear in the CSV and XML versions of the report.
* The Report will now display EPT and GMT Hour Ending.
* The header will only appear once at the top of the file
* Additional columns have been added for Regulation MWh Adjustment, Synchronized Reserve MWh Adjustment, and Offset for Reg High less than LMP Desired MWh. Regulation MWh Adjustment represents the amount the generator adjusted its output due to regulation signals. Synchronized Reserve MWh adjustment represents the total amount of Tier 2 Synchronized Reserve MWh assigned to the unit. Offset for Reg High less than LMP desired represents the amount the unit had to reduce to fall within its regulation band.
* Effective for trade dates 9/1/2015 forward, Offer at RT MWh ($/MWh) will be 0 if MWh Reduced <= 0.
* Effective for trade dates 9/1/2015 forward, Offer at DA MWh ($/MWh) and Offer at RT MWh ($/MWh) will be datatype NUMBER(22,6). For trade dates prior to 9/1/2015, Offer at DA MWh ($/MWh) and Offer at RT MWh ($/MWh) will be datatype NUMBER(22,2).

# Report Columns

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

|  |  |  |  |
| --- | --- | --- | --- |
| **Online and CSV Column Name** | **XML Column Name** | **Column Number** | **Data Type** |
| Customer ID | CUSTOMER\_ID | 4000.01 | INTEGER |
| Customer Code | CUSTOMER\_CODE | 4000.02 | VARCHAR2(6) |
| EPT Hour Ending | EPT\_HOUR\_ENDING | 4000.05 | VARCHAR2(40)  mm/dd/yyyy HH24 format  (Displays first hour of the day as hour 1 and last hour of the day as hour 24) |
| GMT Hour Ending | GMT\_HOUR\_ENDING | 4000.06 | VARCHAR2(40)  mm/dd/yyyy HH24 format  (Displays first hour of the day as hour 1 and last hour of the day as hour 00 of the following day) |
| Unit ID | UNIT\_ID | 4000.63 | NUMBER(8,0) |
| Unit Name | UNIT\_NAME | 4000.64 | VARCHAR2(60) |
| Unit Ownership Share | UNIT\_OWNERSHIP\_SHARE | 3000.80 | NUMBER |
| Schedule ID | SCHEDULE\_ID | 4000.65 | NUMBER(22,2) |
| DA Scheduled MWh | DA\_SCHEDULED\_MWH | 3000.32 | NUMBER(8,1) |
| Offer at DA MWh ($/MWh) | OFFER\_DA\_MWH | 3000.92 | NUMBER(22,6) |
| DA Generator LMP ($/MWh) | DA\_GENERATOR\_LMP | 3000.24 | NUMBER(12,6) |
| RT Generation (MWh) | RT\_GENERATION | 3000.33 | NUMBER(11,3) |
| Offer at RT MWh ($/MWh) | OFFER\_RT\_MWH | 3000.93 | NUMBER(22,6) |
| RT Generator LMP ($/MWh) | RT\_GENERATOR\_LMP | 3000.25 | NUMBER(12,6) |
| RT LMP Desired MWh | RT\_LMP\_DESIRED\_MWH | 3000.34 | NUMBER(22,3) |
| Wind Forecast MWh | WIND\_FORECAST\_MWH | 3001.41 | NUMBER(22,3) |
| Reg MWh Adj | REG\_MWH\_ADJ | 3000.94 | NUMBER(22,3) |
| Synch Reserve MWh Adj | SYNCHRES\_MWH\_ADJ | 3000.95 | NUMBER(22,3) |
| Offset for Reg High < LMP Desired (MWh) | OFFSET\_REG\_HIGH\_LT\_LMP\_DESIRED | 3000.99 | NUMBER(22,3) |
| MWh Reduced | MWH\_REDUCED | 3000.96 | NUMBER(22,3) |
| Operating Reserve Lost Opportunity Cost Credit ($) | OPRES\_LOC\_CREDIT | 2375.18 | NUMBER(22,2) |
| Version | VERSION | 4000.07 | VARCHAR2(12) |

# CSV Report Example

See Excel file titled “Operating Reserve Lost Opportunity Cost Credits CSV Format.csv”

# XML Report Example

See XML file titled “Operating Reserve Lost Opportunity Cost Credits XML Format.xml”

# Hyperlinks

The online version of this report contains the following hyperlinks:

|  |  |
| --- | --- |
| **Column Name** | **Hyperlinked Report** |
| Reg Adj MWh | Regulation Credits |
| Synch Reserve Adj MWh | Spinning Reserve Tier 2 Credit Details |

# Supporting Calculations

If the unit is a CT or Diesel unit and is scheduled for PJM Day-ahead and not called on in Real-time, then:

MWh Reduced (3000.96) = 0

Operating Reserve Lost Opportunity Cost Credit (2375.18) = MAX ((RT Generator LMP (3000.25) – DA Generator LMP (3000.24)) \* DA Scheduled MWh (3000.32), (RT Generator LMP (3000.25) – Offer at DA MWh (3000.92)) \* DA Scheduled MWh (3000.32), 0)

If the unit is a Wind Farm unit, then:

MWh Reduced (3000.96) = MIN(RT LMP Desired MWh (3000.34), Wind Forecast MWh (3001.41)) – RT Generation (3000.33) – Reg MWh Adj (3000.94) – Synch Reserve MWh Adj (3000.95) – Reg High < LMP Desired (3000.99)

Operating Reserve Lost Opportunity Cost Credit (2375.18) = MWh Reduced (3000.96) \* (max(RT Generator LMP (3000.25) – Offer at RT MWh (3000.93)), 0)

Else:

MWh Reduced (3000.96) = RT LMP Desired MWh (3000.34) – RT Generation (3000.33) – Reg MWh Adj (3000.94) – Synch Reserve MWh Adj (3000.95) – Reg High < LMP Desired (3000.99)

Operating Reserve Lost Opportunity Cost Credit (2375.18) = MWh Reduced (3000.96) \* (max(RT Generator LMP (3000.25) – Offer at RT MWh (3000.93)), 0)