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**MSRS Report Format Documentation**

**Balancing Operating Reserve Generator Credit Details**

**Version 6**

Revision History

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| --- | --- | --- |
| **date** | **Revision** | **Description** |
| 4/1/2018 | 1 | Initial Distribution |
| 6/15/2018 | 2 | Updated column numbers for Economic Max (MW) and RT Dispatch Desired MW columns |
| 08/28/2018 | 3 | Updated Column name for DA Operating Reserve Credit ($) to DA Scheduled MW (3000.32) |
| 10/01/2022 | 4 | Removed Column Operating Reserve Offsetting DASR Revenue;  Added Columns Operating Reserve Offsetting SECR Revenue and Operating Reserve Market Revenue Neutrality Offsets;  Updated Supporting Calculations; |
| 11/18/2022 | 5 | Added calculation for Operating Reserve Market Revenue Neutrality Offsets |
| 2/1/2024 | 6 | Updated RT Dispatch Desired Type description to 2 = Dispatch LMP Desired MW and 4 = Dispatch Signal MW;  Updated calculation for Balancing Operating Reserve Credit for units self-scheduled DA to subtract the DA value of self-scheduled intervals in a segment |

# Report

MSRS Report Name: Balancing Operating Reserve Generator Credit Details

Report short name for User Interface: Balancing Operating Reserve Generator Credit Details

Download File Name Abbreviation: BORGenCr

Data Granularity: Sub-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 5 minute interval values used in calculating the customer account’s Balancing Operating Reserve Generator Credits (Balancing Operating Reserve Generator, Local Constraint and Cancellation Credits). The details in this report do not reflect the customer account’s share of jointly owned units. All owners will see the full values associated with the unit.

# Summary of Changes and Special Logic

* The value that appears in the DA Schedule ID column will be the last 2 digits of the schedule ID of the DA generation schedule that the generator was running on at the given interval.
* The value that appears in the RT Schedule ID column will be the last 2 digits of the schedule ID of the RT generation schedule that the generator was running on at the given interval
* There can be two segments per synchronized start per unit per day. Therefore, segment numbers on the report will start at one for each unit and increment upward, potentially exceeding the number two if a unit has more than one start in a given day.
* The Balancing Operating Reserve Reason ID will display the reason to which the hourly operation of the unit is being attributed. BOR Reason ID 1 = Reliability, 2 = Deviations
* The Balancing Operating Reserve Region ID will display the ID of the balancing operating reserve region to which the credits earned by the unit will be applied. BOR Region ID 1 = RTO, 2 = East, 3 = West
* The RT Dispatch Desired Type will indicate the MW values was used in the calculation of RT Dispatch Desired. RT Dispatch Desired Type 1 = Actual MW, 2 = Dispatch LMP Desired MW, 3 = Ramp-Limited Desired MW, 4 = Dispatch Signal MW
* Daylight Saving Time (DST) Handling
* DA Value ($), DA Net Revenue ($), and DA Operating Reserve Credit ($) columns will be the 5 minute interval profiled values of the hourly Day-Ahead values from the Day-Ahead Operating Reserve Generator Credit Details report.
* The Operating Reserve Market Revenue Neutrality Offsets is a total value of the offsets applied to the synchronized reserve, non-synchronized reserve, and secondary reserve markets

# 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) |
| Date | DATE | 4000.04 | DATE (MM/DD/YYYY in online and CSV formats, YYYY-MM-DD in XML format) |
| EPT Interval Ending | EPT\_INTERVAL\_ENDING | 4001.40 | VARCHAR2(40)  mm/dd/yyyy HH24:MM format  (Displays first interval of the day as hour 0 minute 05 and last interval of the day as hour 24 minute 00) |
| GMT Interval Ending | GMT\_INTERVAL\_ENDING | 4001.41 | VARCHAR2(40)  mm/dd/yyyy HH24:MM format  (Displays first interval of the day in relation to EPT interval as hour 04 minute 05 or hour 05 minute 05 (EDT/EST depending) and last interval of the day as hour 04 minute 00 of the next day or hour 05 minute 00 of the next day (EDT/EST depending)) |
| 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 |
| Dispatch Rate | DISPATCH\_RATE | 3002.1 | NUMBER |
| RT Generator LMP ($/MWh) | RT\_GENERATOR\_LMP | 3000.25 | NUMBER |
| RT Generation MW | RT\_GEN\_MW | 3000.33 | NUMBER |
| DA Schedule ID | DA\_SCHED\_ID | 3002.11 | NUMBER |
| DA Value ($) | DA\_VALUE | 3002.15 | NUMBER |
| DA Net Revenue ($) | DA\_NET\_REVENUE | 3002.16 | NUMBER |
| DA Scheduled MW | DA\_SCHEDULED\_MW | 3000.32 | NUMBER |
| Scheduled Min (MW) | SCHED\_MIN | 3002.17 | NUMBER |
| Scheduled Max (MW) | SCHED\_MAX | 3002.18 | NUMBER |
| RT Schedule ID | RT\_SCHED\_ID | 3002.19 | NUMBER |
| Segment ID | SEGMENT\_ID | 4001.33 | NUMBER |
| BOR Reason ID | BOR\_REASON\_ID | 3002.2 | NUMBER |
| BOR Region ID | BOR\_REGION\_ID | 3002.21 | NUMBER |
| Economic Min (MW) | ECONOMIC\_MIN | 3002.22 | NUMBER |
| Economic Max (MW) | ECONOMIC\_MAX | 3002.23 | NUMBER |
| RT Dispatch Desired MW | RT\_DISP\_DESIRE\_MW | 3002.38 | NUMBER |
| RT Dispatch Desired Type | RT\_DISP\_DESIRE\_TYPE | 3002.24 | NUMBER |
| RT MW Used | RT\_MW\_USED | 3002.25 | NUMBER |
| Bal Value MW Used | BAL\_VAL\_MW\_USED | 3002.26 | NUMBER |
| RT Energy Offer ($) | RT\_ENERGY\_OFFER | 3002.27 | NUMBER |
| RT No-Load Cost ($) | RT\_NO\_LOAD\_COST | 3002.28 | NUMBER |
| RT Startup Cost ($) | RT\_STARTUP\_COST | 3002.29 | NUMBER |
| RT Additional Startup Cost ($) | RT\_ADD\_STARTUP\_COST | 3002.30 | NUMBER |
| Bal Value ($) | BAL\_VALUE | 3002.31 | NUMBER |
| Operating Reserve Offsetting Synch Reserve Revenue ($) | OPRES\_OFFSET\_SYNCH\_RES\_REV | 3002.32 | NUMBER |
| Operating Reserve Offsetting Reactive Services Revenue ($) | OPRES\_OFFSET\_RCTV\_SER\_REV | 3002.33 | NUMBER |
| Operating Reserve Offsetting SECR Revenue ($) | OPRES\_OFFSET\_SECR\_REV | 3002.39 | NUMBER |
| Operating Reserve Offsetting Non-Synch Reserve Revenue ($) | OPRES\_OFFSET\_NON\_SYNCH\_RES\_REV | 3002.35 | NUMBER |
| Operating Reserve Market Revenue Neutrality Offsets ($) | OPRES\_MRN\_OFFSETS | 3002.65 | NUMBER |
| Bal Net Revenue ($) | BAL\_NET\_REV | 3002.36 | NUMBER |
| Version | VERSION | 4000.07 | VARCHAR2(12) |

# CSV Report Example

See Excel file titled “Balancing Operating Reserve Generator Credit Details CSV Format.csv”

Note: This CSV file includes enhanced detail to illustrate column population for each transaction type.

# XML Report Example

See XML file titled “Balancing Operating Reserve Generator Credit Details XML Format.xml”

# Supporting Calculations

Bal Net Revenue = (Bal Value + Operating Reserve Offsetting Synch Reserve Revenue + Operating Reserve Offsetting Reactive Services Revenue + Operating Reserve Offsetting SECR Revenue + Operating Reserve Offsetting Non-Synch Reserve Revenue + Operating Reserve Market Revenue Neutrality Offsets) – (RT Energy Offer + RT No-Load Cost + RT Startup Cost + RT Additional Startup Cost )

3002.36 = (3002.31 + 3002.32 + 3002.33 + 3002.39 + 3002.35 + 3002.65) – (3002.27 + 3002.28 + 3002.29 + 3002.30)

If the calculation above is negative, and the RT Schedule ID is a cost-based schedule or the RT Schedule ID is a price-based parameter limited schedule and the parameters are less flexible than the Unit Specific Parameter, then Bal Net Revenue = 0

The following calculations are used in support of invoice values and the resultants do not appear as columns on the report:

If Segment ID = 1, Bal Net Revenue (for all intervals of the day) = The Sum of Bal Net Revenue for all intervals \* -1

Balancing Operating Reserve Credit = MAX((Bal Net Revenue(for all intervals of the day) – DA Value (for all intervals of the day) – DA Credit (for all intervals of the day)), 0)

Else, for all other distinct Segment IDs, Bal Net Revenue(for all intervals of the day) = The Sum of Bal Net Revenue for all intervals \* -1

Balancing Operating Reserve Credit = MAX((Bal Net Revenues (for all intervals of the day) – DA Value (for all intervals the unit was self-scheduled in that segment)), 0)

Daily Balancing Operating Reserve Credit = Sum(Balancing Operating Reserve Credit) for all segments in the day

Operating Reserve Market Revenue Neutrality Offsets  = -1 \* (Synch Reserve MRN Offset + Non-Synch Reserve MRN Offset + Sec Reserve MRN Offset)

3002.65 = -1\* (2360.60 + 2362.28 + 2361.18)