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**MSRS Report Format Documentation**

**Synchronized Reserve Tier 1 Credits**

**Version 7**

Revision History

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| --- | --- | --- |
| **Date** | **Revision** | **Description** |
| 10/19/2007 | 1 | Initial Distribution |
| 11/16/2007 | 2 | Updated the XML column name for the Tier 1 Premium Price column from TIER1\_PREMUIM\_PRICE to TIER1\_PREMIUM\_PRICE |
| 5/4/2008 | 3 | Updated Tier 1 Credit MWh calculation |
| 11/5/2012 | 4 | Updated ‘Summary of Changes and Special Logic‘ section for Tier 1 Premium Price ($) and RT LMP ($) columns effective 10/1/2012. |
| 8/7/2014 | 5 | Updated Supporting Calculations section to provide more detailed information about the data that appears on the report. |
| 4/1/2018 | 6 | Updated EPT Hour Ending and GMT Hour Ending columns to EPT Interval Ending and GMT Interval Ending. Removed RT LMP column. Updated Summary of Changes and Special Logic with regards to 5 minute settlements implementation date. Added 5 minute settlements section to supporting calculations. |
| 2/21/2020 | 7 | Removed all references to eSchedule(s) and/or eSchedule(s) reports. |

# Report

**MSRS** Report Name: Synchronized Reserve Tier 1 Credits

Report short name for User Interface: Synchronized Reserve Tier 1 Credits

Download File Name Abbreviation: SRT1Cr

Data Granularity: Sub-hourly

Frequency: Updated daily

Range Displayed on Report: Start Date through End Date

# Supported Billing Line Items

Synchronized Reserve Credit (2360)

# Report Content Summary

This report displays the customer account’s sub- hourly Synchronized Reserve Tier 1 Credit for each unit that the customer account owns or jointly owns and where the unit’s Tier 1 Credit is greater than 0.

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.

This report will display the generator’s Tier 1 Adjustment.

Trade dates prior to 10/1/2012, the Tier 1 Premium Price ($) column will display the average of the 5-minute LMPs calculated during the synchronized reserve event plus $50/MWh.

Trade dates 10/1/2012 forward, during intervals where the Non-Synchronized Reserve Market Clearing Price is non-zero for the applicable reserve zone or subzone, the Tier 1 Premium Price ($) column will display the Synchronized Reserve Market Clearing Price.

Trade dates 10/1/2012 to 2/1/2018, during hours where the Non-Synchronized Reserve Market Clearing Price is non-zero for the applicable reserve zone or subzone, the RT LMP ($) column will display the zero.

# 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 Interval Ending | EPT\_INTERVAL\_ENDING | 4000.40 | 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 | 4000.41 | 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 |
| Synch Reserve Event Start Time (EPT) | SYNCH\_RES\_EVENT\_START\_TIME | 4000.36 | DATE  mm/dd/yyyy hh:mm:ss in online and CSV formats,  yyyy-mm-ddThh:mm:ss in XML format |
| Synch Reserve Event End Time (EPT) | SYNCH\_RES\_EVENT\_END\_TIME | 4000.37 | DATE  mm/dd/yyyy hh:mm:ss in online and CSV formats,  yyyy-mm-ddThh:mm:ss in XML format |
| Tier 1 Synch Reserve Response MW | TIER1\_SYNCH\_RES\_RESPONSE\_MW | 2360.20 | NUMBER |
| Synch Reserve Capability (MWh) | SYNCH\_RES\_CAPABILITY | 2360.21 | NUMBER |
| Tier 1 Adjustment MW | TIER1\_ADJUSTMENT\_MW | 2360.22 | NUMBER |
| Tier 1 Credit MW | TIER1\_CREDIT\_MW | 2360.23 | NUMBER |
| Tier 1 Premium Price ($/MWh) | TIER1\_PREMIUM\_PRICE | 3000.64 | NUMBER |
| Tier 1 Credit ($) | TIER1\_CREDIT | 2360.24 | NUMBER(22,2) |
| Version | VERSION | 4000.07 | VARCHAR2(12) |

# CSV Report Example

See Excel file titled “Synchronized Reserve Tier 1 Credits CSV Format.csv”

# XML Report Example

See XML file titled “Synchronized Reserve Tier 1 Credits XML Format.xml”

# Hyperlinks

The online version of this report does not contain hyperlinks.

# 9 Supporting Calculations

**For Trade dates prior to 10/1/2012,**

If Tier 1 Synch Reserve Response (2360.20) is <= Synch Reserve Capability (2360.21):

Tier 1 Credit MWh (2360.23) = Tier 1 Synch Reserve Response (2360.20) + Tier 1 Adjustment (2360.22)

If Tier 1 Synch Reserve Response (2360.20) is > Synch Reserve Capability (2360.21):

Tier 1 Credit MWh (2360.23) = Synch Reserve Capability (2350.21) + Tier 1 Adjustment (2360.22)

Tier 1 Credits (2360.24) = Tier 1 Credit MWh (2360.23) \* (Tier 1 Premium Price (3000.64) – RT Generator LMP (3000.25))

**For trade dates 10/1/2012 forward,**

If the Non-Synchronized Reserve Market Clearing Price is zero and there is a synchronized reserve event in the applicable reserve zone or sub-zone then:

If Tier 1 Synch Reserve Response (2360.20) is <= Synch Reserve Capability (2360.21):

Tier 1 Credit MWh (2360.23) = Tier 1 Synch Reserve Response (2360.20) + Tier 1 Adjustment (2360.22)

If Tier 1 Synch Reserve Response (2360.20) is > Synch Reserve Capability (2360.21):

Tier 1 Credit MWh (2360.23) = Synch Reserve Capability (2350.21) + Tier 1 Adjustment (2360.22)

If the Non-Synchronized Reserve Market Clearing Price is non-zero and there is no synchronized reserve event in the applicable reserve zone or sub-zone, then the Tier 1 Sync Reserve Response (2360.20), Synch Reserve Capability (2360.21), and the Tier 1 Adjustment (2360.22) columns will display nulls and the Tier 1 Credit MWh (2360.23) will display the Tier 1 estimate MWh.

If the Non-Synchronized Reserve Market Clearing Price is non-zero and there is a synchronized reserve event in the applicable reserve zone or sub-zone, then:

Tier 1 Credit MWh (2360.23) = Min(Tier 1 Synch Reserve Response (2360.20) , Tier 1 estimated amount)

During the hours where the Non-Synchronized Reserve Market Clearing Price is non-zero for the applicable reserve zone or subzone, then:

Tier 1 Premium Price (3000.64) = Synchronized Reserve Market Clearing Price

RT Generator LMP (3000.25) = 0

Tier 1 Credits (2360.24) = Tier 1 Credit MWh (2360.23) \* (Tier 1 Premium Price (3000.64) – RT Generator LMP (3000.25))

**For 5 Minute Settlements:**

If the Non-Synchronized Reserve Market Clearing Price is zero and there is a synchronized reserve event in the applicable reserve zone or sub-zone then:

If Tier 1 Synch Reserve Response (2360.20) is <= Synch Reserve Capability (2360.21):

Tier 1 Credit MWh (2360.23) = Tier 1 Synch Reserve Response (2360.20) + Tier 1 Adjustment (2360.22)

If Tier 1 Synch Reserve Response (2360.20) is > Synch Reserve Capability (2360.21):

Tier 1 Credit MWh (2360.23) = Synch Reserve Capability (2350.21) + Tier 1 Adjustment (2360.22)

If the Non-Synchronized Reserve Market Clearing Price is non-zero and there is no synchronized reserve event in the applicable reserve zone or sub-zone, then the Tier 1 Sync Reserve Response (2360.20), Synch Reserve Capability (2360.21), and the Tier 1 Adjustment (2360.22) columns will display nulls and the Tier 1 Credit MWh (2360.23) will display the Tier 1 estimate MWh.

If the Non-Synchronized Reserve Market Clearing Price is non-zero and there is a synchronized reserve event in the applicable reserve zone or sub-zone, then:

Tier 1 Credit MWh (2360.23) = Min(Tier 1 Synch Reserve Response (2360.20) , Tier 1 estimated amount)

During the Real-time Settlement Intervals where the Non-Synchronized Reserve Market Clearing Price is non-zero for the applicable reserve zone or subzone, then:

Tier 1 Premium Price (3000.64) = Synchronized Reserve Market Clearing Price

Tier 1 Credits = Tier 1 Credit MW \* (Tier 1 Premium Price/12)

2360.24 = 2360.23 \* (3000.64/12)