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**MSRS Report Format Documentation**

**Synchronous Condensing Credits**

**Version 4**

Revision History

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| --- | --- | --- |
| **date** | **Revision** | **Description** |
| 10/01/2007 | 1 | Initial Distribution |
| 3/27/2017 | 2 | Updated and re-ordered Supporting Calculations:  Previously   * **Synchronous Condensing Lost Opportunity Cost Credit (2377.19)** = MAX( MAX( Economic Max (3000.98) - MAX(RT Generation MWh (3000.33), 0), 0)) \* (MAX(RT Generator LMP (3000.25) - Offer at RT LMP Desired MWh (2377.16), 0)) - Synchronous Condensing Credit (2377.18), 0) * **Reactive Services Condensing Credit (2378.18)** = MAX (Economic Max (3000.98) \* SRMCP (3000.61) \* Condensing Duration (2377.13)), ((Condensing Duration (2377.13) \* Energy Use (2377.15) \* RT Generator LMP (3000.25)) + (Condensing Duration (2377.13) \* Condensing Offer (2377.14)) + Condensing Start Up Cost (2377.17)) * **Reactive Services Condensing Lost Opportunity Cost Credit (2378.19)** = MAX( MAX( Economic Max (3000.98) - MAX(RT Generation (3000.33), 0), 0)) \* (MAX(RT Generator LMP (3000.25) - Offer at RT LMP Desired MWh (2377.16), 0)) - Reactive Services Condensing Credit (2378.18), 0) |
| 4/1/2018 | 3 | Updated EPT/GMT hour ending with EPT/GMT interval ending, Updated MWh units to MW where applicable; added calculations for 5 minute settlements calculations |
| 8/6/2024 | 4 | Updated calculation details for Synchronous Condensing Credit to reflect calculation effective 8/6/2024 per Docket No. ER24-2203 |

# Report

MSRS Report Name: Synchronous Condensing Credits

Report short name for User Interface: Synchronous Condensing Credits

Download File Name Abbreviation: SCCr

Data Granularity: Sub-hourly

Frequency: Updated daily

Range Displayed on Report: Start Date through End Date

# Supported Billing Line Items

* Synchronous Condensing Credit (2377)
* Reactive Services Credit (2378)

# Report Content Summary

This report displays the customer account’s sub-hourly Synchronous Condensing Credits and Reactive Condensing Credits where their synchronous condensing credit for the interval is not null or where their reactive services condensing credit for the interval is not null.

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 Condensing Duration column will be populated with a value between 0 and 1 and will represent the fraction of the 5 Minute Interval in which the unit was condensing.

# 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 | 4001.40 | VARCHAR2(40)  mm/dd/yyyy HH24 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 |
| Schedule ID | SCHEDULE\_ID | 4000.65 | NUMBER |
| Reactive Services Indicator | REACTIVE\_SERVICES\_INDICATOR | 4000.66 | CHAR(1)  See possible values below |
| Condensing Duration (% 5 Min Interval) | COND\_DURATION | 2377.13 | NUMBER |
| Condensing Offer ($/hr) | COND\_OFFER | 2377.14 | NUMBER(10,2) |
| Energy Use (MW) | ENERGY\_USE | 2377.15 | NUMBER(11,3) |
| RT Generator LMP ($/MWh) | RT\_GENERATOR\_LMP | 3000.25 | NUMBER(12,6) |
| Offer at RT LMP Desired MWh ($/MWh) | OFFER\_AT\_RT\_LMP\_DESIRED\_MWH | 2377.16 | NUMBER(22,2) |
| Condensing Start Up Cost ($) | COND\_STARTUP\_COST | 2377.17 | NUMBER(22,2) |
| Economic Max (MWh) | ECONOMIC\_MAX | 3000.98 | NUMBER(11,3) |
| RT Generation (MW) | RT\_GENERATION | 3000.33 | NUMBER(11,3) |
| SRMCP ($/MWh) | SRMCP | 3000.61 | NUMBER(14,2) |
| Synchronous Condensing Credit ($) | SYNC\_COND\_CR | 2377.18 | NUMBER(22,2) |
| Synchronous Condensing Lost Opportunity Cost Credit ($) | SYNC\_COND\_LOST\_OPP\_COST\_CREDIT | 2377.19 | NUMBER(22,2) |
| Reactive Services Condensing Credit($) | REACTIVE\_SERVICES\_COND\_CREDIT | 2378.18 | NUMBER(22,2) |
| Reactive Services Condensing Lost Opportunity Cost Credit ($) | REACTIVE\_SERVICES\_COND\_LOC\_CREDIT | 2378.19 | NUMBER(22,2) |
| Version | VERSION | 4000.17 | VARCHAR2(12) |

Possible Reactive Services Indicator Values: Y or N

# CSV Report Example

See Excel file titled “Synchronous Condensing Credits CSV Format.csv”

# XML Report Example

See XML file titled “Synchronous Condensing Credits XML Format.xml”

# Hyperlinks

The online version of this report does not contain hyperlinks.

# Supporting Calculations

**Calculations for dates prior to 4/1/2018:**

Synchronous Condensing Credit (2377.18) = (Condensing Duration (2377.13) \* Energy Use (2377.15) \* RT Generator LMP (3000.25)) + (Condensing Duration (2377.13) \* Condensing Offer (2377.14)) + Condensing Start Up Cost (2377.17)

Synchronous Condensing Lost Opportunity Cost Credit (2377.19) = MAX( MAX( Economic Max (3000.98) - MAX(RT Generation MWh (3000.33), 0), 0)) \* (MAX(RT Generator LMP (3000.25) - Offer at RT LMP Desired MWh (2377.16), 0))

Reactive Services Condensing Credit (2378.18) = IF (Synchronous Condensing Credit (2377.18) + Synchronous Condensing Lost Opportunity Cost Credit (2377.19) > Economic Max (3000.98) \* SRMCP (3000.61) \* Condensing Duration (2377.13) THEN Synchronous Condensing Credit (2377.18) ELSE Economic Max (3000.98) \* SRMCP (3000.61) \* Condensing Duration (2377.13))

Reactive Services Condensing Lost Opportunity Cost Credit (2378.19) = IF Synchronous Condensing Credit (2377.18) + Synchronous Condensing Lost Opportunity Cost Credit (2377.19) > Economic Max (3000.98) \* SRMCP (3000.61) \* Condensing Duration (2377.13) THEN Synchronous Condensing Lost Opportunity Cost Credit (2377.19) ELSE 0

**Calculations for 5 minute Settlements (4/1/2018):**

Effective for dates prior to 8/6/2024,

Synchronous Condensing Credit = [(Condensing Duration \* Energy Use \* RT Generator LMP) + (Condensing Duration \* Condensing Offer) + Condensing Start Up Cost]/12

(2377.18) = [((2377.13) \* (2377.15) \* (3000.25)) + ((2377.13) \* (2377.14)) + (2377.17)]/12

Effective for dates after 8/6/2024 (Docket No. ER24-2203-000),

Synchronous Condensing Credit = [(Condensing Duration \* Energy Use \* RT Generator LMP) + Condensing Start Up Cost]/12

(2377.18) = [((2377.13) \* (2377.15) \* (3000.25)) + (2377.17)]/12

Synchronous Condensing Lost Opportunity Cost Credit = (MAX (Economic Max - MAX(RT Generation MWh, 0), 0)) \* (MAX[(RT Generator LMP/12 - Offer at RT LMP Desired MWh/12,0])

(2377.19) = (MAX ((3000.98) - MAX ((3000.33), 0), 0)) \* (MAX [(3000.25)/12 - (2377.16)/12,0])

Reactive Services Condensing Credit = IF (Synchronous Condensing Credit + Synchronous Condensing Lost Opportunity Cost Credit > [Economic Max \* SRMCP \* Condensing Duration] / 12 THEN Synchronous Condensing Credit ELSE [Economic Max \* SRMCP \* Condensing Duration] / 12)

(2378.18) = IF ((2377.18) + (2377.19) > [(3000.98) \* (3000.61) \* (2377.13)] / 12 THEN (2377.18) ELSE [(3000.98) \* (3000.61) \* (2377.13)] / 12)

Reactive Services Condensing Lost Opportunity Cost Credit = IF Synchronous Condensing Credit + Synchronous Condensing Lost Opportunity Cost Credit > [Economic Max \* SRMCP \* Condensing Duration] / 12 THEN Synchronous Condensing Lost Opportunity Cost Credit ELSE 0

(2378.19) = IF (2377.18) + Credit (2377.19) > [(3000.98) \* (3000.61) \* (2377.13)] / 12 THEN (2377.19) ELSE 0