



MSRS Report Format Documentation

Energy Uplift Generator Tracking Ramp Limited Desired

Version 1

Revision History

DATE	REVISION	DESCRIPTION
4/29/2026	1	Initial Distribution

1 Report

MSRS Report Name: Energy Uplift Generator Tracking Ramp Limited Desired
Report short name for User Interface: Energy Uplift Generator Tracking Ramp Limited Desired

Download File Name Abbreviation: GenTRLD

Data Granularity: Sub-Hourly

Frequency: Updated Daily

Range Displayed on Report: Start Date through End Date

2 Supported Billing Line Items

- This report does not specifically support any Billing Line Items.

3 Report Content Summary

This report displays the customer account's energy uplift generator Tracking Ramp Limited Desired (TRLD) MW details for each generation unit that they own or jointly own. 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.

4 Summary of Changes and Special Cases

The Ramp MW that appears on this report can be calculated as the Sum (Applicable Segment Ramp Rate * Applicable Segment Ramp Duration) in the 5-min interval. Refer to the Unit Tracking Ramp Details report for data to support this calculation.

Ramp MW = Sum (Ramp Rate * Ramp Duration) for the 5-min interval where Ramp Type = TRLD

Adjusted Ramp MW = Sum (Ramp Rate * Ramp Duration) for the 5-min interval where Ramp Type = Adjusted TRLD

5 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(15,0)
Unit Name	UNIT_NAME	4000.64	VARCHAR2(75)
RT Schedule ID	RT_SCHED_ID	3002.19	NUMBER
DA Scheduled MWh	DA_SCHD_MWH	3000.32	NUMBER
RT Generation MWh	RT_GEN_MWH	3000.33	NUMBER
Committed Min MW	COMMITTED_MIN	3002.17	NUMBER
Committed Max MW	COMMITTED_MAX	3002.18	NUMBER
RT Min MW	RT_MIN	3002.22	NUMBER
RT Max MW	RT_MAX	3002.23	NUMBER
Manual Dispatch Indicator	MANUAL_DISPATCH_IND	3004.30	VARCHAR2(1) See possible values below

TRLD Min MW	TRLD_MIN_MW	3004.31	NUMBER
TRLD Max MW	TRLD_MAX_MW	3004.32	NUMBER
Dispatch Signal MW	DISPATCH_SIGNAL_MW	3002.40	NUMBER
Ramp Limited Desired MW	RAMP_LIMITED_DESIRED_MW	3002.41	NUMBER
Dispatch LMP Desired MW	DISPATCH_LMP_DESIRED_MW	3002.42	NUMBER
Dispatch Run LMP (\$/MWh)	DISPATCH_RUN_LMP	3004.33	NUMBER
Zonal Dispatch Rate (\$/MWh)	ZONAL_DISPATCH_RATE	3004.34	NUMBER
Ramp MW	RAMP_MW	3004.35	NUMBER
Previous Power TRLD MW	PREV_POWER_TRLD_MW	3004.36	NUMBER
Power TRLD MW	POWER_TRLD_MW	3004.37	NUMBER
Energy TRLD MWh	ENERGY_TRLD_MWH	3004.38	NUMBER
Use Actual Energy TRLD Indicator	USE_ACTUAL_ENERGY_TRLD_IND	3004.39	VARCHAR2(1) See possible values below
Regulation Assignment MW	REG_ASSIGNMENT	3004.40	NUMBER
Regulation Min MW	REG_MIN_MW	3004.41	NUMBER
Regulation Max MW	REG_MAX_MW	3004.42	NUMBER
Regulation Ramp Share MW	REG_RAMP_SHARE_MW	3004.43	NUMBER
Synch Reserve Assignment MW	SR_ASSIGNMENT_MW	3004.44	NUMBER
Synch Reserve Max MW	SR_MAX_MW	3004.45	NUMBER
Sec Reserve Assignment MW	SECR_ASSIGNMENT_MW	3004.46	NUMBER
Sec Reserve Max MW	SECR_MAX_MW	3004.47	NUMBER
Stability Limit Indicator	STABILITY_LIMIT_IND	3004.48	VARCHAR2(1) See possible values below
Adjusted TRLD Min MW	ADJ_TRLD_MIN	3004.49	NUMBER
Adjusted TRLD Max MW	ADJ_TRLD_MAX	3004.50	NUMBER
Adjusted Ramp MW	ADJ_RAMP_MW	3004.51	NUMBER
Adjusted Previous Power TRLD MW	ADJ_PREV_POWER_TRLD_MW	3004.52	NUMBER
Adjusted Power TRLD MW	ADJ_POWER_TRLD_MW	3004.53	NUMBER
Adjusted Energy TRLD MWh	ADJ_ENERGY_TRLD_MWH	3004.54	NUMBER
Version	VERSION	4000.07	VARCHAR2(12)

Possible values for Indicator rows: Y or N

6 CSV Report Example

See Excel file titled “Energy Uplift Generator TRLD CSV Format.csv”

7 XML Report Example

See XML file titled “Energy Uplift Generator TRLD XML Format.xml”

8 Supporting Calculations

“TRLD MW” is referred to as “TRLD MW” in the calculations.

TRLD Calculations:

If Zonal Dispatch Rate (3004.34) > 0 then:

- Zonal dispatch rates are sent via PJM EMS to replace RT SCED individual unit dispatch instructions when operating under PJM manual dispatch conditions. Dispatch LMP Desired MW is calculated using Zonal Dispatch Rate In lieu of Dispatch Run LMP

If Stability Limit Indicator (3004.48) = ‘Y’ then:

TRLD Max MW (3004.32) = Stability Limit Value

If Dispatch LMP Desired MW (3002.42) > Previous Power TRLD MW (3004.36) then:

Ramp MW (3004.35) > 0

Else if Dispatch LMP Desired MW (3002.42) < Previous Power TRLD MW (3004.36) then:

Ramp MW (3004.35) < 0

Else if Dispatch LMP Desired MW (3002.42) = Previous Power TRLD MW (3004.36) then:

Ramp MW (3004.35) = 0

For T_0 Interval (The 5-min interval unit’s TRLD calculation begins):

If unit is called on for a time in future, then:

Previous Power TRLD MW = MAX (MIN (Dispatch LMP Desired MW, Dispatch Signal MW), RT Min MW)
(3004.36) = MAX(MIN((3002.42), (3002,40), (3002.22))

Else if unit is called on in real-time, then:

Previous Power TRLD MW = MAX (MIN (Dispatch LMP Desired MW, Dispatch Signal MW), RT Min MW)
(3004.36) = MAX(MIN((3002.42), (3002,40), (3002.22))

Else

Previous Power TRLD MW = 0
(3004.36) = 0

For all subsequent intervals:

Previous Power TRLD MW (3004.36) = Power TRLD MW (3004.37) from previous 5-min interval

Power TRLD MW = Previous Power TRLD MW + Ramp MW

(3004.37) = (3004.36) + (3004.35)

If the 5-min interval has only one ramp segment,

- Energy TRLD MWh (3004.38) = ((Average of Previous Power TRLD MW and Power TRLD MW) * Ramp Duration /5) + (Power TRLD MW) * (1 – (Ramp duration /5)))

Else if the ramp within 5-min interval spans more than one ramp segment, then,

This calculation repeats for each segment ramp applied within the 5-min interval as below:

If ramp segment is the first segment within the 5-min interval, then:

Segment Begin TRLD MW = Previous TRLD MW

Else

Segment Begin TRLD MW = (Segment Begin MW + Segment Ramp MW) from the previous segment

Segment End TRLD MW = Segment Begin MW + Segment Ramp MW

Energy TRLD MWh (3004.38) = (Sum (Ramp Duration * Average (Segment Begin TRLD MW + Segment End TRLD MW)) + (Power TRLD MW * (1 – (Total Ramp Duration across segments / 5)))

For Segmented Ramp MW and Ramp Duration details, refer to Unit Tracking Ramp Details Report

If Use Actual Energy TRLD Indicator = ‘Y’, then:

Power TRLD MW (3004.37) = 0

Energy TRLD MWh (3004.38) = Unit’s RT Generation MWh (3000.33)

Adjusted TRLD Calculations:

For T₀ Interval (The 5-min interval unit’s TRLD calculation begins):

Adjusted Previous Power TRLD MW = Previous Power TRLD MW (3004.52)

For all subsequent intervals:

Adjusted Previous Power TRLD MW (3004.52) = Adjusted Power TRLD MW (3004.53) from previous 5-min interval

Adjusted Power TRLD MW = Adjusted Previous Power TRLD MW + Adjusted Ramp MW

(3004.53) = (3004.52) + (3004.51)

If the 5-min interval has only one ramp segment,

- Adjusted Energy TRLD MWh (3004.54) = ((Average of Adjusted Previous Power TRLD MW and Adjusted Power TRLD MW) * Ramp Duration /5) + (Adjusted Power TRLD MW) * (1 – (Ramp duration /5)))
- (3004.54) = (((3004.52) + (3004.53)) / 2 * (Ramp Duration / 5)) + ((3004.53) * (1 – (Ramp Duration /5)))

Else if the ramp within 5-min interval spans more than one ramp segment, then:

This calculation repeats for each segment ramp applied within the 5-min interval as below:

If ramp segment is the first segment within the 5-min interval, then:

Segment Adjusted Begin TRLD MW = Adjusted Previous TRLD MW

Else

Segment Adjusted Begin TRLD MW = (Segment Adjusted Begin MW + Segment Adjusted Ramp MW) from the previous segment

Segment Adjusted End TRLD MW = Segment Adjusted Begin MW + Segment Adjusted Ramp MW

Adjusted Energy TRLD MWh (3004.548) = (Sum (Ramp Duration * Average (Segment Adjusted Begin TRLD MW + Segment Adjusted End TRLD MW)) + (Adjusted Power TRLD MW * (1 – (Total Ramp Duration across segments / 5)))

For ramp segment Adjusted Ramp MW and Ramp Duration details, refer to Unit Tracking Ramp Details Report

If Manual Dispatch Indicator (3004.30) = 'Y' then:

Adjusted TRLD Min MW (3004.49) = applicable override Eco Min MW by PJM Dispatch that reflects the lower limit from the manual dispatch instructions

Adjusted TRLD Max MW (3004.50) = applicable override Eco Max MW by PJM Dispatch that reflects the upper limit from the manual dispatch instructions

If Regulation Assignment MW (3004.40) > 0 then:

Adjusted TRLD Min MW = Regulation Min MW + Regulation Assignment MW

(3004.49) = (3004.41) + (3004.40)

Adjusted TRLD Max MW = Regulation Max - Regulation Assignment MW

(3004.50) = (3004.42) - (3004.40)

If Synch Reserve Assignment MW (3004.44) > 0 then:

Adjusted TRLD Max MW = Sync Reserve Max MW - Synch Reserve Assignment MW

(3004.50) = (3004.45) - (3004.44)

If Sec Reserve Assignment MW (3004.46) > 0 then:

Adjusted TRLD Max MW = Sec Reserve Max MW - Sec Reserve Assignment MW

(3004.50) = (3004.47) - (3004.46)

If Stability Limit Indicator (3004.48) = 'Y' then:

Adjusted TRLD Max MW (3004.50) = Stability Limit Value

If Use Actual Energy TRLD Indicator = 'Y', then:

Adjusted Power TRLD MW (3004.53) = 0

Adjusted Energy TRLD MWh (3004.54) = Unit's RT Generation MWh (3000.33)