

Non-Retail BTMG Performance

- Non-Retail Behind the Meter Generation (NRBTMG) that has output netted from load for purposes of determining LSE's Network Service Peak Load (NSPL) & Obligation Peak Load (OPL) is required to operate during the first 10 occurrences of Maximum Generation Emergency conditions in the zone where the unit resides between the period of November 1 through October 31
 - Applies to MGE condition called for generation or transmission emergencies
- Maximum Generation Emergency Action and Deploy All Resources Action trigger requirement to operate
 - Operate at maximum net or gross electrical power output, subject to equipment stress limits of unit
- Performance of a unit during emergency event will be measured against an expected performance level of such unit

- Unit performance shortfalls are netted for units located in same modeled wholesale area
- Positive net performance shortfall (under-performance) in area results in event netting reduction penalty for area
 - Event Netting Reduction Amount = 10% of net performance shortfall
 - Total Netting Reduction Amount = Sum of Event Netting Reduction Amounts for first 10 events
- EDC's procedures for calculating an area's NSPL and OPL shall ensure that the total operating Non-Retail BTMG that is allowed to net against the area's actual load during the relevant hours is reduced by the total netting reduction amount in the area
 - **Results in an increase in the area's NSPL in subsequent calendar year and OPL in subsequent delivery year**

NRBTMG required to operate during emergency events from Nov 1-Oct 31

- If unit operated during CP hours in prior Nov 1-October 31 period required to operate during first 10 events

Failure to operate during first 10 events impacts NSPL for wholesale area

- Upward adjustment to NSPL for subsequent calendar year



Dec. 23 & 24
Emergency
Events

Generation
Output for
event hours
due Feb 4,
2023

Performance results for Dec 2022
events available early April 2023

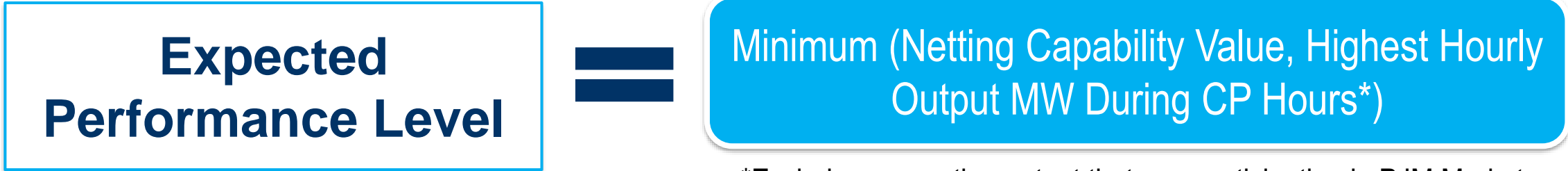
- Unit performance shortfalls
- Netting reduction penalty amount for wholesale area

Final total netting reduction
penalty amount for
wholesale area as a result
of first 10 events

- Available no later than Nov. 30

Failure to operate during first 10 events impacts OPL for wholesale area

- Upward adjustment to OPL for subsequent delivery year



*Excludes generation output that was participating in PJM Markets



(1) Select the desired Compliance Year from the drop down list.

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Capacity Exchange

Compliance Year: 11/01/2022-10/31/2023 ▾ Refresh XML CSV

Expected Performance | Event Performance | Netting Reduction

PJMTST >> 11/01/2022-10/31/2023 Row Count: 3

Account Name	Unit ID	Unit Name	Zone	Area	Netting Capability MW	Highest Output MW	Expected Performar MW
PJMTST	9902	NRBTMG DIESEL UNIT 3	DAY	AREA3	4.4	4.2	4.2
PJMTST	9900	NRBTMG LFG UNIT 1	AEP	AREA2	3.0	2.9	2.9
PJMTST	9901	NRBTMG SOLAR UNIT 2	AEP	AREA2	0.8	1.9	0.8

A list of NRBTMG units with their Expected Performance value for the compliance year is displayed.

Expected Performance for a compliance year is available in December of the compliance year. PJM sends a communication when expected performance data is available in Capacity Exchange.



- Excused MWs may be granted due to scheduled outages or transmission restrictions
- No excused MWs for scheduled outages that occur during emergency events from June through September



Output in PJM Markets is reported if unit is tied to a Pre-Emergency/Emergency DR Hub registration ID

Average Output for Event

12/23/2022 Event: 17:30 – 23:00 EPT

Unit Name	Emergency Event	HOUR ENDING (EPT)	TOTAL OUTPUT (MW)	OUTPUT IN PJM MARKETS (MW)	PERFORMANCE OUTPUT (MW)	Number of Intervals in Event Hour	Performance Output * Number of Intervals in Event Hour (MW)
NRBTMG DIESEL UNIT 3	12/23/2022 Max Gen Emergency Action	12/23/2022 18:00	2.5	0	2.5	6	15
		12/23/2022 19:00	3.2	0	3.2	12	38.4
		12/23/2022 20:00	3.3	0	3.3	12	39.6
		12/23/2022 21:00	3.3	0	3.3	12	39.6
		12/23/2022 22:00	3.3	0	3.3	12	39.6
		12/23/2022 23:00	3.3	0	3.3	12	39.6
							TOTAL

Performance Output MW = Total Output MW – Output in PJM Markets

Average Output for Event = Sum of (Performance Output * Number of Intervals in Event Hour)/Total Number of Intervals for Event = 211.8 MW/66 = **3.2 MW**

Excused MW due to Scheduled Outage

- If Average Output MW < Expected Performance, Excused MWs may be granted if scheduled outage reported to PJM in advance of the emergency event
- Outages submitted to PJM or modified during the emergency event will not be considered
- No Excused MW will be granted for emergency events occurring during June through September

Excused MW due to Transmission Restrictions

- If Average Output MW < Expected Performance, Excused MWs may be granted if unit was unable to generate due to the actual wholesale area load level and restrictions placed on the unit to prevent injections into the PJM transmission system

(1) Select the desired Compliance Year from the drop down list.

(2) Select the desired Event from the drop down list.

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Compliance Year: 11/01/2022-10/31/2023 ▾ Events: 12/23/2022 Max Gen Eme ▾ Refresh XML CSV

Expected Performance | **Event Performance** | Netting Reduction

PJMTST >> 11/01/2022-10/31/2023 >> 12/23/2022 Max Gen Emergency Action Row Count: 5

Zone	Area	Unit ID	Unit Name	Start Time	Stop Time	Expected Performance MW	Average Output MW	Excused MW Due To Scheduled	Excused MW Due to Transmissior Restriction	Unit Performance Shortfall MW
▼ AEP	AREA2									-0.3
AEP	AREA2	9900	NRBTMG LFG UNIT 1	01/15/2020 06:30	01/15/2020 08:45	2.9	3.400			-0.5
AEP	AREA2	9901	NRBTMG SOLAR UNIT 2	01/15/2020 06:30	01/15/2020 08:45	0.8	0.600			0.2
▼ DAY	AREA3									1.1
DAY	AREA3	9902	NRBTMG DIESEL UNIT 3	01/15/2020 06:30	01/15/2020 08:45	4.2	3.200			1.1

Net Shortfall

Wholesale area with positive net shortfall subject to netting reduction penalty

Unit Performance Shortfalls netted for NRBTMG units in wholesale area

Total Netting Reduction for Wholesale Area

**Event Netting
Reduction**



10% of the Net Performance Shortfall for
wholesale area for the emergency event

**Total Netting
Reduction**



Sum of event netting reduction amounts for
wholesale area for the first 10 emergency
events in compliance period

(1) Select the desired Compliance Year from the drop down list.

Compliance Year: 11/01/2022-10/31/2023 Refresh XML CSV

Expected Performance | Event Performance | **Netting Reduction**

PJMTST >> 11/01/2022-10/31/2023 Row Count: 2

Zone	Area	Start Date	Stop Date	Netting Reduction
AEP	AREA2	11/01/2019	10/31/2020	0.0
DAY	AREA3	11/01/2019	10/31/2020	0.1

The total netting reduction amount for a wholesale area due to the first ten emergency events during the compliance year is displayed.

The EDC that is responsible for calculating the NSPL and OPL for wholesale areas in the zone will be able to view netting reduction data for all wholesale areas in the zone.

In EDC procedures for calculating a wholesale area's NSPL or OPL for the subsequent calendar year/delivery year, the total amount of operating NRBTMG that is allowed to net against the wholesale area's actual load during the relevant hours is to be reduced by the total netting reduction amount for the wholesale area.

	Area Gross Load (MW)	Operating NRBTMG (MW)	Area Net Load (MW)	Total Netting Reduction Amount (MW)	Operating NRBTMG Minus Total Reduction Amount (MW)	Adjusted Area Net Load (MW)
CP Hour	10	5	5	3	2	8

- EDC is to account for total netting reduction amount in procedures for calculating wholesale area's NSPL or OPL for subsequent calendar year/delivery year
- Operating Non-Retail BTMG that is eligible to net against the wholesale area's actual load during the relevant coincident peak hours is to be reduced by total netting reduction amount
- Results in an upward adjustment to NSPL and OPL for wholesale area