

NPRR 1126 Default Uplift Allocation Design

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The calculation of default uplift shares in the protocols over-represents CRR activity

Estimated Default Uplift Allocation Shares

-Protocol section 9.19.1 -

- ERCOT estimated that approximately 50% of a default allocation occurring in February 2021 would have been allocated to CRR activity
- ERCOT estimated approximately 47% of a default allocation occurring in August 2021 would have been allocated to CRR activity

QSE/CRRAH Level			
January 2021 (RTM_FINAL) NPRR1126 Adjustment			
Segment	Current Protocols	Original NPRR	DC Energy Comments
Gen	2.29%	3.77%	4.12%
Load	13.17%	16.58%	15.73%
Load and Gen	9.08%	15.29%	15.07%
Trader	24.82%	31.95%	28.88%
CRRAH Only	50.65%	32.40%	36.20%
Total	100.00%	100.00%	100.00%
MMATOT	218,577,111	174,481,586	176,039,218

QSE/CRRAH Level			
August 2021 (RTM_FINAL) NPRR1126 Adjustment			
Segment	Current Protocols	Original NPRR	DC Energy Comments
Gen	2.58%	3.58%	3.75%
Load	16.67%	20.82%	19.19%
Load and Gen	11.83%	15.89%	16.06%
Trader	21.65%	27.76%	25.04%
CRRAH Only	47.28%	31.95%	35.97%
Total	100.00%	100.00%	100.00%
MMATOT	222,159,396	180,151,515	177,300,597

- The default uplift methodology uses the quantity of MWh instead of the amount of dollars
 - This leads to the significant over-representation of CRR activity
- Energy trades, generation, and load settle at the full energy price, because they represent the actual production, consumption, or transfer of energy, while CRRs only settle for nodal price differences
 - Yet they are treated at the same value in the default formula



NPRR 1126 seeks three changes to the current ERCOT default uplift allocation process

NPRR 1126 Default Uplift Allocation Enhancement

–Changes to Protocol Formula (9.19.1 (2)) –

(2) Each Counter-Party's share of the uplift is calculated using True-Up Settlement data for each Operating Day in the month prior to the month in which the default occurred, and is calculated as follows:

$$\text{DURSCP}_{cp} = \text{TSPA} * \text{MMARS}_{cp}$$

Where:

$$\text{MMARS}_{cp} = \text{MMA}_{cp} / \text{MMATOT}$$

$$\text{MMA}_{cp} = \text{Max} \left\{ \begin{array}{l} \sum_{mp} (\text{URTMG}_{mp} + \text{URTDCIMP}_{mp} + \text{USOGTOT}_{mp}) \rightarrow \text{RTM Metered Generation and DC Tie Imports \& Uplift RT Settlement Only Generator} \\ \sum_{mp} (\text{URTAML}_{mp} + \text{UWSLTOT}_{mp}) \rightarrow \text{RTM Adjusted Metered Load and uplift metered energy} \\ \sum_{mp} \text{URTQQUES}_{mp} \rightarrow \text{RTM QSE to QSE Energy Sales} \\ \sum_{mp} \text{URTQQEP}_{mp} \rightarrow \text{RTM QSE to QSE Energy Purchases} \\ \sum_{mp} \text{UDAES}_{mp} \rightarrow \text{DAM Energy Sales (TPO and Energy-Only)} \\ \sum_{mp} \text{UDAEP}_{mp} \rightarrow \text{DAM Energy Purchases} \\ \sum_{mp} (\text{URTOBL}_{mp} + \text{URTOBLO}_{mp}) \rightarrow \text{RTM PTP Obligations and uplift} \\ \sum_{mp} (\text{UDAOPT}_{mp} + \text{UDAOBL}_{mp} + \text{UOPTS}_{mp} + \text{UOBS}_{mp}) \rightarrow \text{CRR Auction Sales \& CRR Ownership in DAM} \\ \sum_{mp} (\text{UOPTP}_{mp} + \text{UOBLP}_{mp}) \rightarrow \text{CRR Auction Purchases} \end{array} \right.$$

$$\text{MMATOT} = \sum_{cp} (\text{MMA}_{cp})$$

Where:

$$\text{URTMG}_{mp} = \sum_{p, r, i} (\text{RTMG}_{mp, p, r, i}), \text{ excluding RTMG for RMR Resources and RTMG in Reliability Unit Commitment (RUC)-Committed Intervals for RUC-committed Resources}$$

$$\text{URTDCIMP}_{mp} = \sum_{p, i} (\text{RTDCIMP}_{mp, p, i}) / 4$$

$$\text{URTAML}_{mp} = \sum_{p, i} \max(0, \sum_{p, i} (\text{RTAML}_{mp, p, i}))$$

$$\text{URTQQUES}_{mp} = \sum_{p, i} (\text{RTQQUES}_{mp, p, i}) / 4$$

$$\text{URTQQEP}_{mp} = \sum_{p, i} (\text{RTQQEP}_{mp, p, i}) / 4$$

$$\text{UDAES}_{mp} = \sum_{p, h} (\text{DAES}_{mp, p, h})$$

$$\text{UDAEP}_{mp} = \sum_{p, h} (\text{DAEP}_{mp, p, h})$$

$$\text{URTOBL}_{mp} = \sum_{i, k, h} (\text{RTOBL}_{mp, i, k, h}) * \text{RTOBLF}$$

$$\text{URTOBLO}_{mp} = \sum_{i, k, h} (\text{RTOBLO}_{mp, i, k, h}) * \text{RTOBLOF}$$

$$\text{UDAOPT}_{mp} = \sum_{i, k, h} (\text{DAOPT}_{mp, i, k, h}) * \text{CRRFAO}$$

$$\text{UDAOBL}_{mp} = \sum_{i, k, h} (\text{DAOBL}_{mp, i, k, h}) * \text{CRRFAO}$$

$$\text{UOPTS}_{mp} = \sum_{i, k, h} (\text{OPTS}_{mp, i, k, h}) * \text{CRRAFS}$$

$$\text{UOBS}_{mp} = \sum_{i, k, h} (\text{OBS}_{mp, i, k, h}) * \text{CRRAFS}$$

$$\text{UOPTP}_{mp} = \sum_{i, k, h} (\text{OPTP}_{mp, i, k, h})$$

$$\text{UOBLP}_{mp} = \sum_{i, k, h} (\text{OBLP}_{mp, i, k, h})$$

$$\text{UWSLTOT}_{mp} = (-1) * \sum_{r, b} (\text{MEBL}_{mp, r, b})$$

$$\text{USOGTOT}_{mp} = \sum_{qsc} (\text{MEBSOGNET}_{mp, qsc}) + \sum_{p, i} (\text{RTMGSOZ}_{mp, p, i})$$

Change #1: 70% scalar assessed to Day Ahead PTPs and PTP w/links to Options. Added in DC Energy 6/30 NPRR comments.

Change #2: 70% scalar assessed to CRR ownership at the time of the DAM. Included in the original NPRR submission.

Change #3: 35% scalar assessed to CRR sales to address double counting. Added in DC Energy 6/30 NPRR comments as a compromise. The original NPRR submission excluded CRR sales, which would have fully eliminated double counting.



NPRR 1126 revises the current default uplift framework to address deficiencies with using MW activity in its calculation

Benefits of NPRR 1126

- **Adjusts the default uplift allocation process to better balance the burden of a default across all market activity**
 - This helps avoid a high concentration of default uplift risk to a single product type, which lowers the risk of second order defaults
 - The allocation of 50% of a \$2.9B default to CRR holders who participate in a market with an average annual value < \$1B [measured by market-wide auction revenue or settlement] is unreasonable compared to the greater energy market value of ~\$50B during the week of Storm Uri
- **Eliminating double counting and reducing the high concentration of default uplift risk to CRRs promotes market liquidity**
 - Lowers the liquidity gap between buyers and sellers
 - Increased auction activity promotes robust forward price discovery
- **Improved risk management: CRRs work together with the energy market to hedge forward risk**
 - Allocating a disproportionate amount of default uplift to CRRs effectively penalizes hedging activity that is essential for managing risk and avoiding defaults in the first place