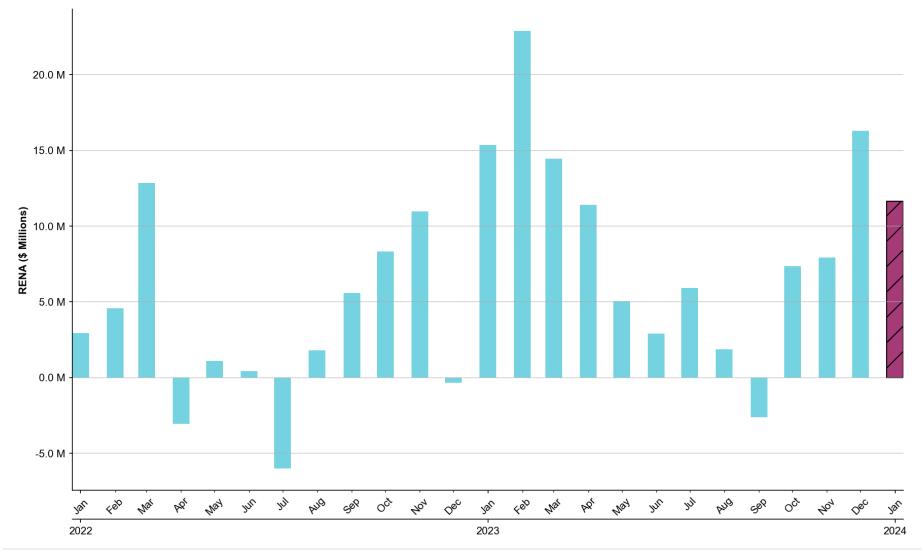


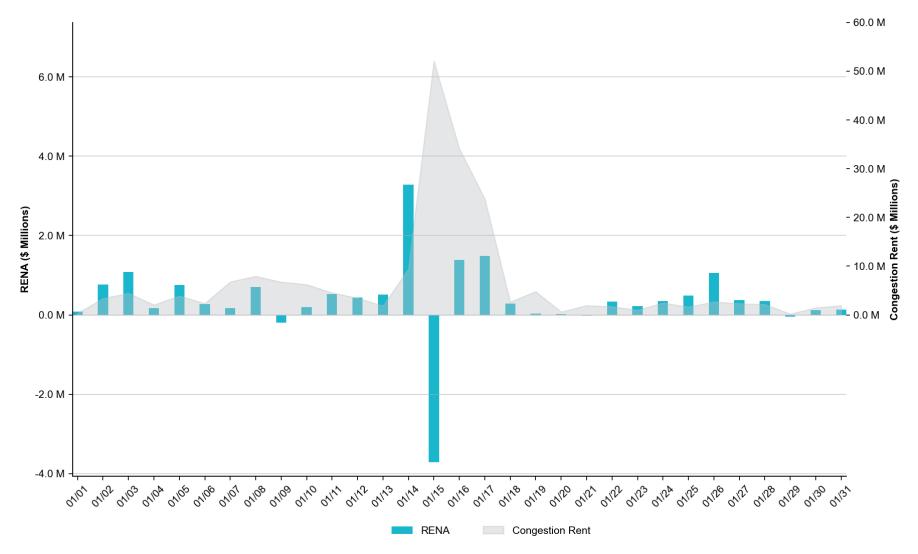
# Historical Monthly RENA Totals

The total RENA in January of \$11.64M represents the 80th percentile compared to the monthly RENA totals across the previous two years.



# Daily RENA vs. Real-Time Congestion Rent

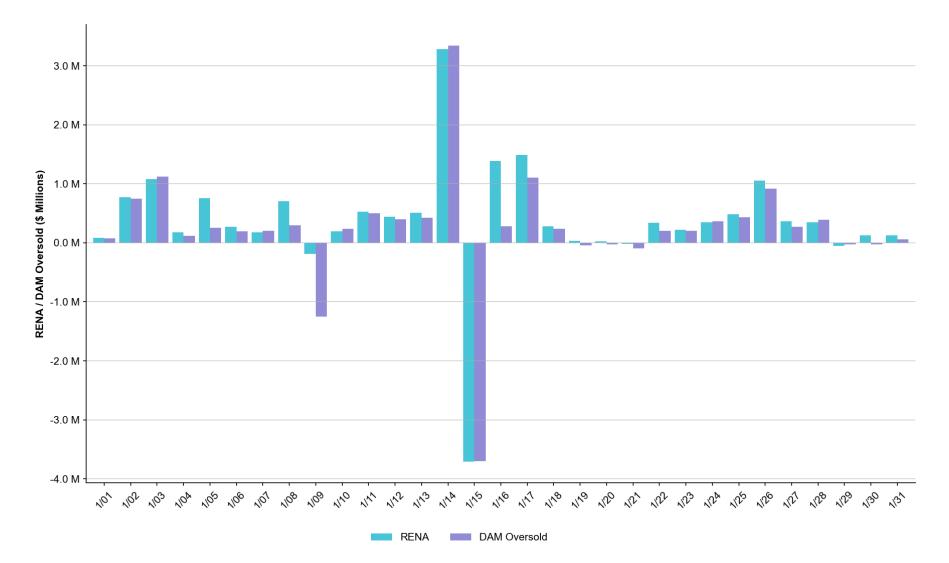
The total RENA in January was approximately \$11.64M, while the total Real-Time congestion rent accrued amounted to \$201.27M.



# Daily RENA vs. estimated DAM Oversold

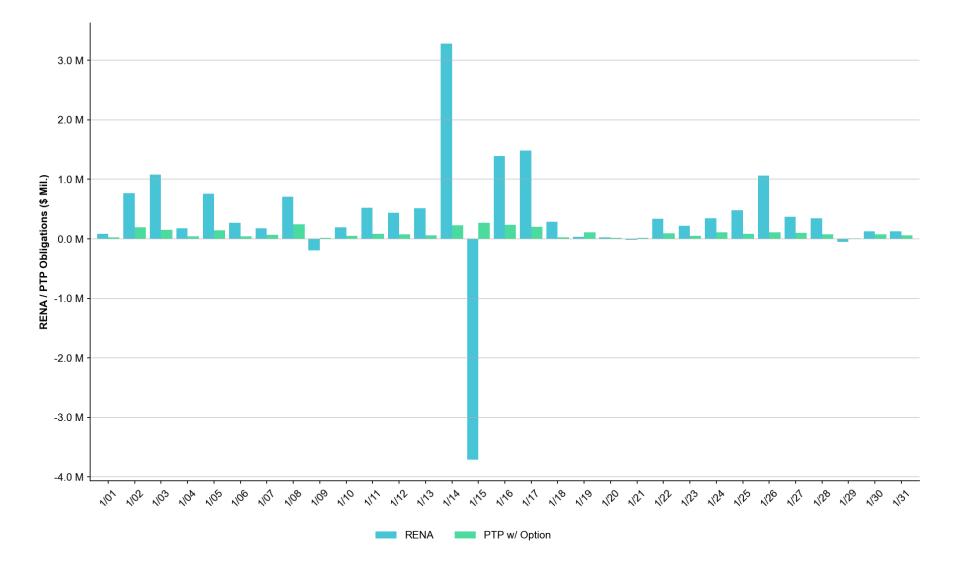
**ERCOT PUBLIC** 

### The total estimated DAM oversold in January was approximately \$7.23M.



# Daily RENA vs. PTP w/ Links to Options

### The estimated sum of PTPs w/ Links to Options in January totaled \$3.08M.



**ERCOT PUBLIC** 

### **Operating Days with RENA exceeding \$1M**

| OPERATING DAY | RENA    | RT CONGESTION RENT | DAM OVERSOLD | PTP W/ OPTION |
|---------------|---------|--------------------|--------------|---------------|
| January-03    | \$1.08M | \$4.46M            | \$1.13M      | \$0.15M       |
| NOTES:        |         |                    |              |               |

DAM Oversold on an RTM constraint: The constraint MFOWLOB5: CATARI\_PILONC1\_1 contributed ca. \$0.4M toward RENA, primarily attributable to a discrepancy in PST tap positions in DAM and RTM.

DAM Oversold on an RTM constraint: The constraint SBAKCED5: HARGRO\_TWINBU1\_1 contributed ca. \$0.4M in RENA, primarily
 attributable to a modelling discrepancy between RTM and DAM related to the outage status of a nearby 69kV transmission line.

| OPERATING DAY | RENA    | RT CONGESTION RENT | DAM OVERSOLD | PTP W/ OPTION |
|---------------|---------|--------------------|--------------|---------------|
| January-14    | \$3.28M | \$9.46M            | \$3.34M      | \$0.23M       |

#### NOTES:

 DAM Oversold on an RTM constraint: The constraint DFOWSMG5: CATARI\_PILONC1\_1 contributed ca. \$2.5M toward RENA, primarily attributable to a discrepancy in PST tap positions in DAM and RTM.

 DAM Oversold on an RTM constraint: The constraint DKENNO89: COLETO\_ROSATA1\_1 contributed ca. \$0.4M toward RENA, primarily attributable to a modelling discrepancy between DAM and RTM related to the outage status of a nearby 138kV transmission line.

| OPERATING DAY | RENA    | RT CONGESTION RENT | DAM OVERSOLD | PTP W/ OPTION |
|---------------|---------|--------------------|--------------|---------------|
| January-16    | \$1.39M | \$34.12M           | \$0.28M      | \$0.23M       |

### NOTES:

- DAM Oversold on an RTM constraint: The constraint SMVRLA\_8: STEWAR\_VERTRE1\_1 contributed ca. \$0.8M toward RENA, primarily attributable to a discrepancy in the LDFs in DAM and the RTM load distribution.
- DAM Oversold on an RTM constraint: The constraint SSANFER8: CORONA\_AT4 contributed ca. \$0.8M toward RENA, primarily
  attributable to a topology discrepancy in DAM and RTM created by the extension of a remedial switching scheme to mitigate the
  contingency in RTM.
- DAM Oversold on an RTM constraint: The constraint XEV158: EVRSW\_MR3H contributed ca. \$0.4M toward RENA, primarily
  attributable to a discrepancy in the LDFs in DAM and the RTM load distribution.

| OPERATING DAY | RENA    | RT CONGESTION RENT | DAM OVERSOLD | PTP W/ OPTION |
|---------------|---------|--------------------|--------------|---------------|
| January-17    | \$1.48M | \$23.82M           | \$1.10M      | \$0.20M       |
|               |         |                    |              |               |

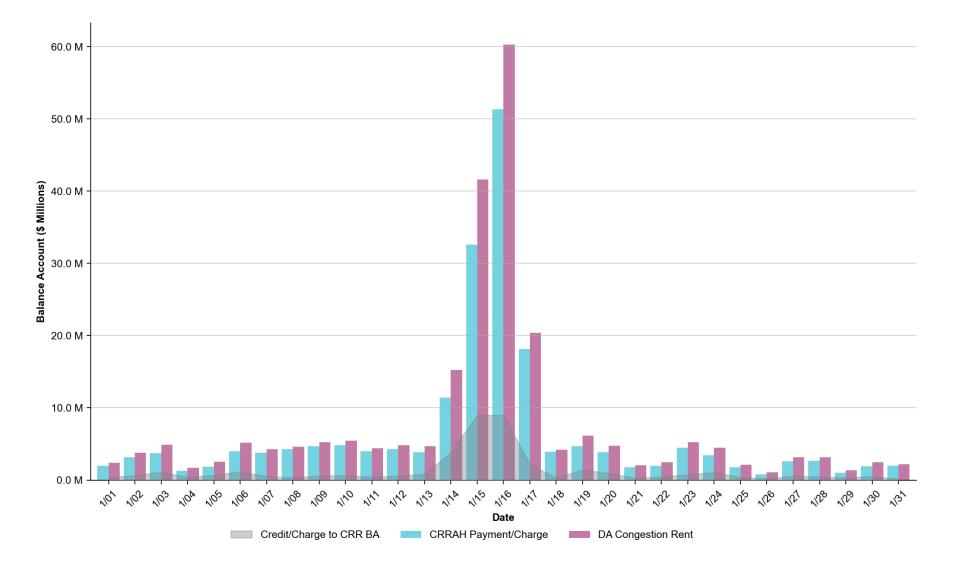
NOTES:

- DAM Oversold on an RTM constraint: The constraint SCOMKEN8: 115T123\_1 contributed ca. \$0.4M toward RENA, primarily
   attributable to a discrepancy in the LDFs in DAM and the RTM load distribution.
- DAM Oversold on an RTM constraint: The constraint SMVRLA\_8: STEWAR\_VERTRE1\_1 contributed ca. \$0.4M toward RENA, primarily attributable to a discrepancy in the LDFs in DAM and the RTM load distribution.
- DAM Oversold on an RTM constraint: The constraint DBIGKEN5: TREADW\_YELWJC1\_1 contributed ca. \$0.2M toward RENA, primarily attributable to a discrepancy in the LDFs in DAM and the RTM load distribution and PST tap discrepancies between DAM and RTM.

### Summary

- The monthly RENA observed in January totaling \$11.64M was high relative to monthly totals across the past two years, with more than half of the total accruing during the winter storm experienced during middle part of the month. The high sum can be primarily attributed to transmission line outage and LDF discrepancies between DAM and RTM. OD 1/15 incurred a significant amount of negative RENA, attributable to a significant amount congestion rent that accrued when real-time transmission constraints were violated.
- The highest RENA observed in January was on OD 01/14 with \$3.28M, which appears to primarily be related to DAM Oversold on an RTM constraint due to a PST tap position discrepancy between DAM and RTM.
- PTP w/ links to options in January totaled \$3.08M, which was higher than in previous months. OD 01/15 accrued the highest total with ca. \$0.26M, which was related to a significant congestion delta between RTM and DAM causing some option-linked PTPs on paths from the West to go negative.

# Monthly CRR Balance Account



## Abbreviations

- **CRR** Congestion Revenue Rights
- **CRRAH** Congestion Revenue Rights' Account Holders
- **CRRBA** Congestion Revenue Rights' Balance Account
- **OD** Operating Day
- PTP Point-to-Point
- **RENA** Revenue Neutrality Allocation Uplift