



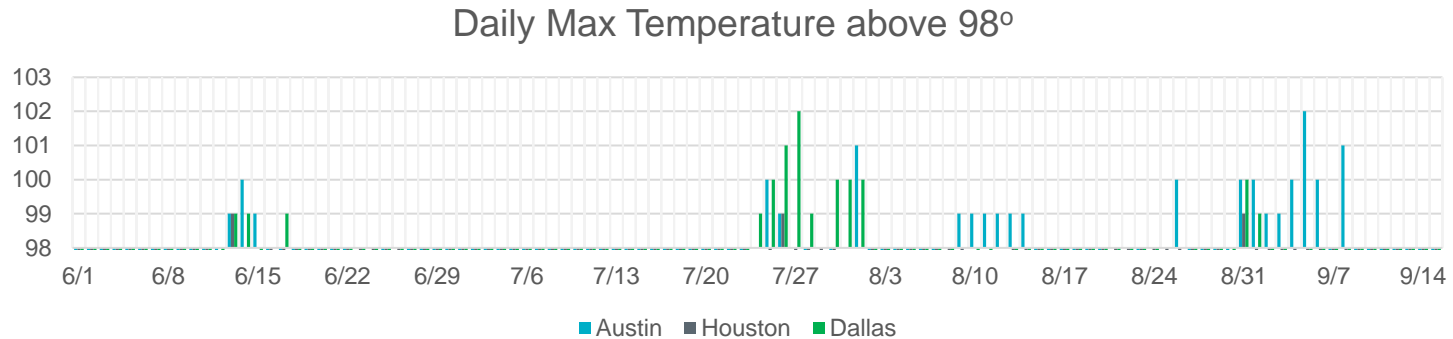
Summer 2021:
ERCOT Grid Operations and
Market Overview

PUC Open Meeting
October 7, 2021

ERCOT Public

Summer Operations – Weather and Demand

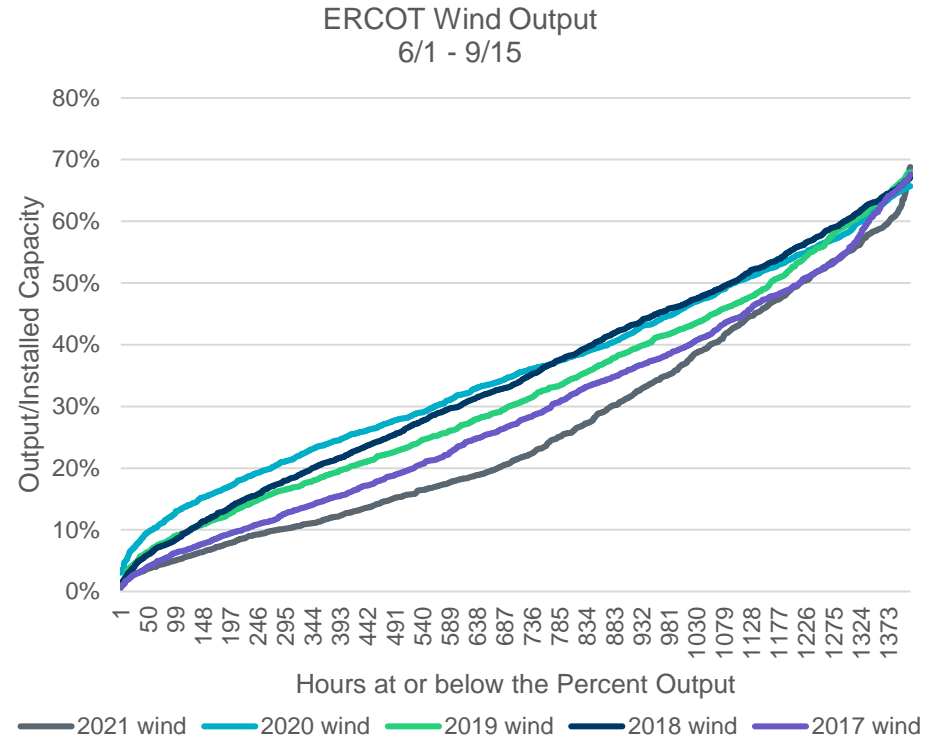
- Weather was generally mild across the state this summer, with temperatures near or below normal and more than normal rainfall.



- New monthly peak demands set for June and September, but no new annual peak demand.
 - June 23 – 70,219 MW
 - September 1 – 72,213 MW
 - 2021 Annual Peak – 73,475 MW on August 31
 - Forecasted summer peak was 77,244 MW

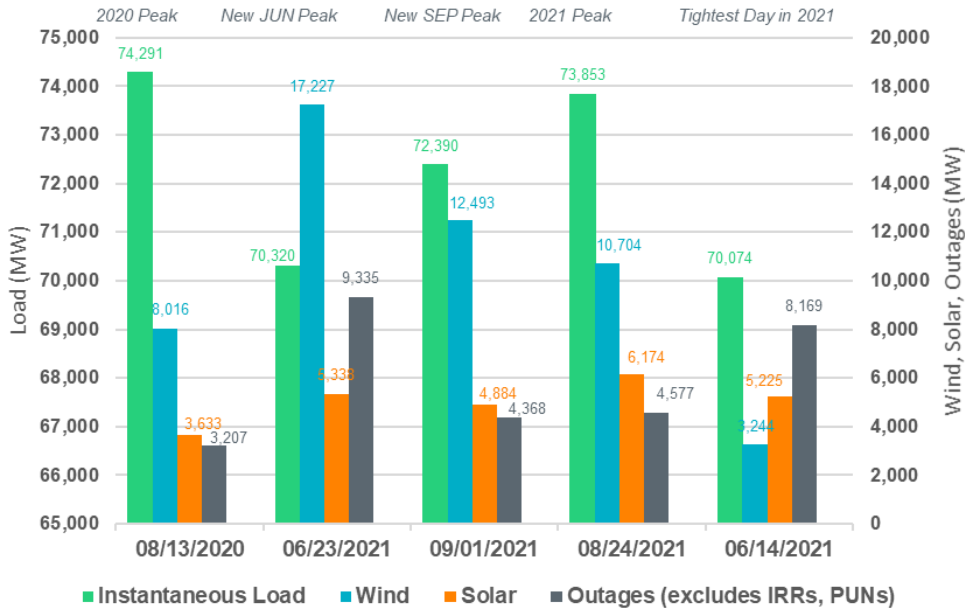
Summer Operations – Wind and Solar

- Wind generation was generally lower in summer 2021 (adjusted for increases in capacity), due to the same weather conditions that led to lower temperatures and peak demands.
- Solar generation (for hour ending 3 p.m.) was higher every day of June-August due to increase in installed capacity.
- New records for wind and solar generation output:
 - Wind reached 23,596 MW at 10:32 p.m. on June 25
 - Solar reached 7,036 MW at 12:45 p.m. on August 3

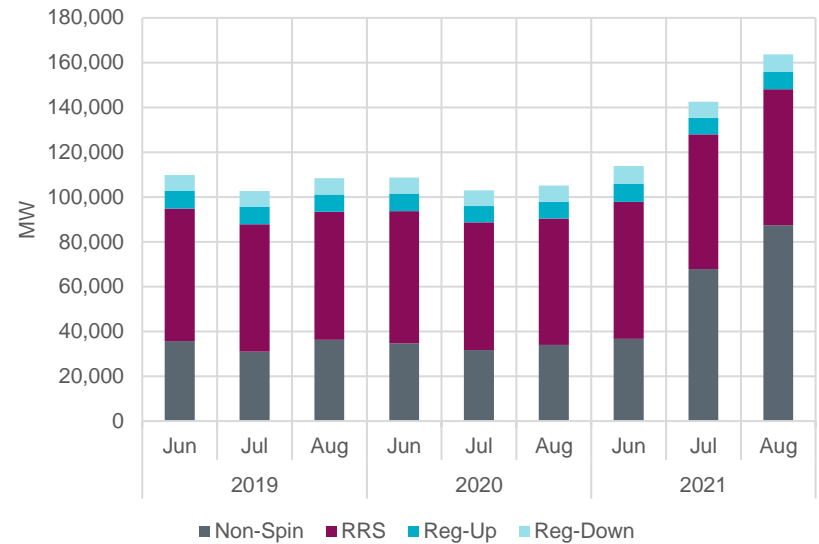


Summer Operations – Thermal Generation and Reserves

- Thermal unit unplanned outages were below 6 GW on days where the net peak demand was high, after mid June.



Average Ancillary Services Quantities in Summer



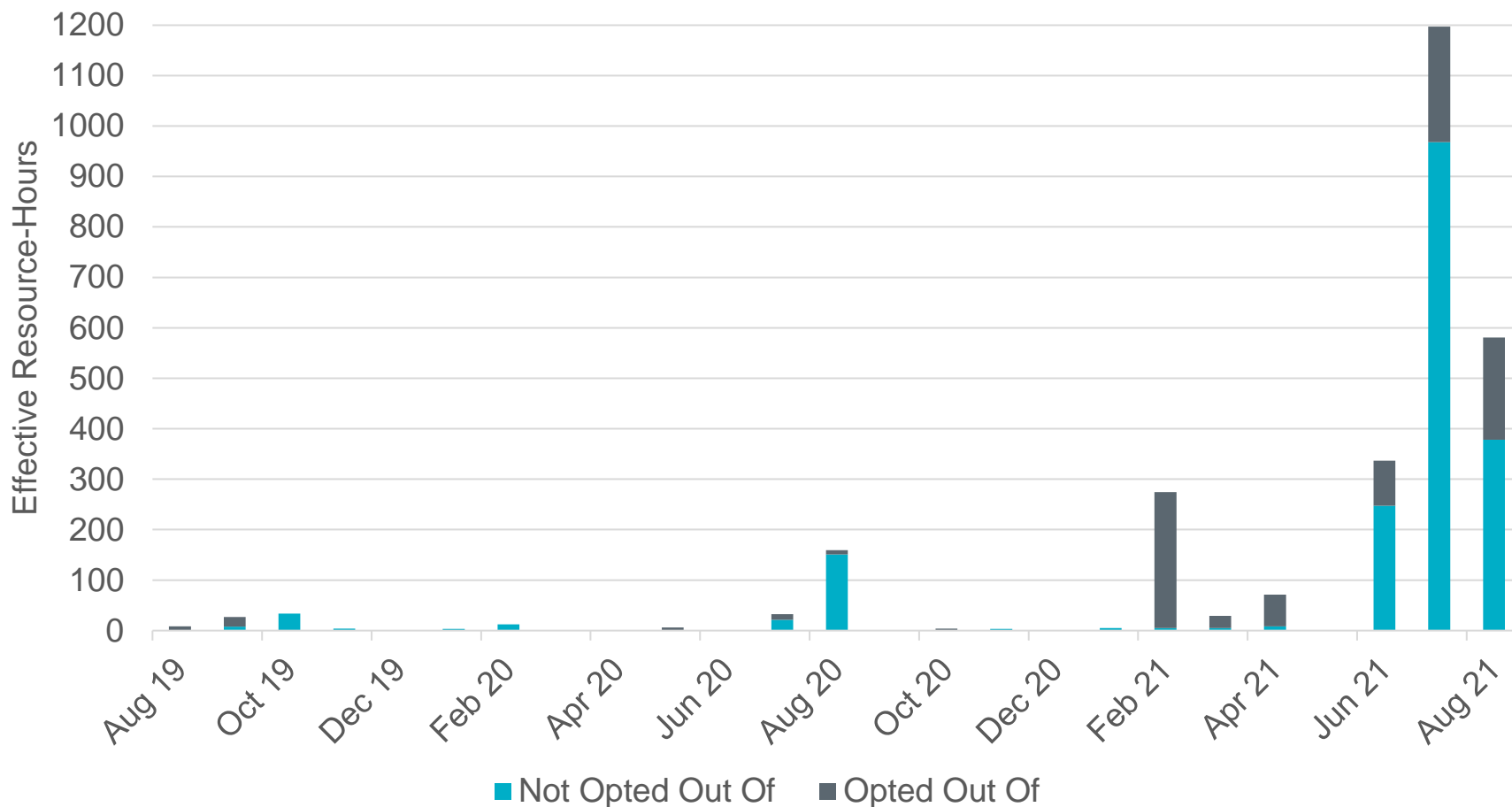
- ERCOT is operating the grid more conservatively to further lower risk of insufficient generation being online due to forecast errors or unplanned thermal generation outages.
 - Purchasing more Ancillary Services.
 - More Reliability Unit Commitments when necessary to achieve a 6,500 MW reserve.



Key Market Observations for Summer 2021

- A relatively cool summer coupled with having the Low System Wide Offer Cap (LCAP) created few scarcity intervals and prices. Hub prices were slightly higher than in 2020 but lower than 2019.
- There were no Mass Transitions or short pays to Market Participants (MPs).
- ERCOT committed more resources through the Reliability Unit Commitment process than previous summers.
- Non-Spin Reserve Service priced out higher in 2021 than 2020.

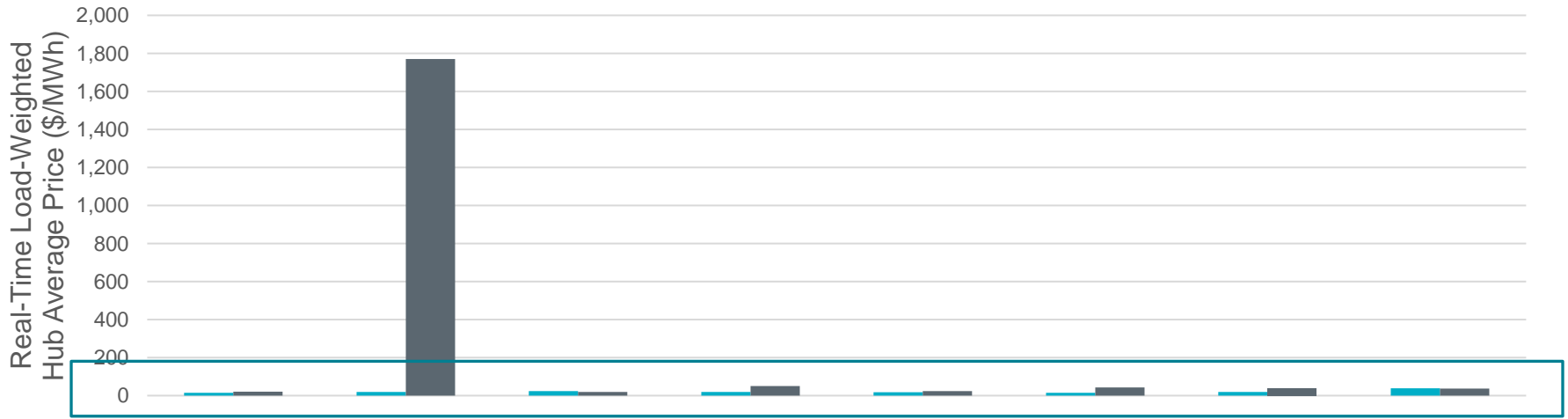
Twenty-Three Resources were Committed through RUC in August for Capacity and Minimum Run-Time



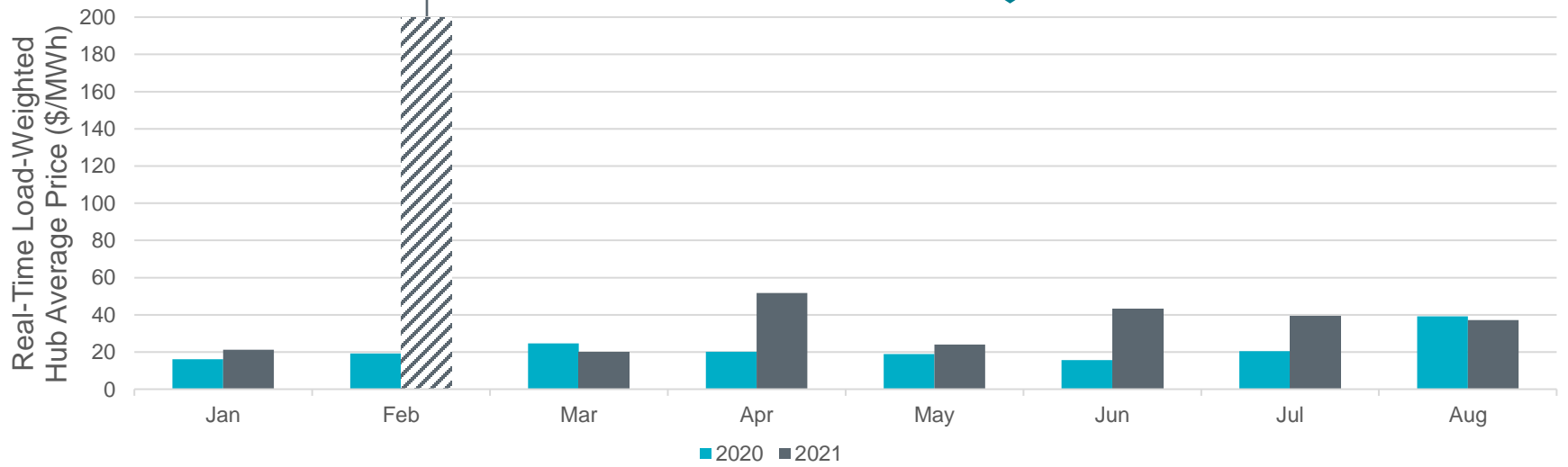
“Effective Resource-hours” excludes any period during a Reliability Unit Commitment hour when the RUC-committed Resource was starting up, shutting down, off-line, or otherwise not available for dispatch by SCED.



Real-Time Hub Price

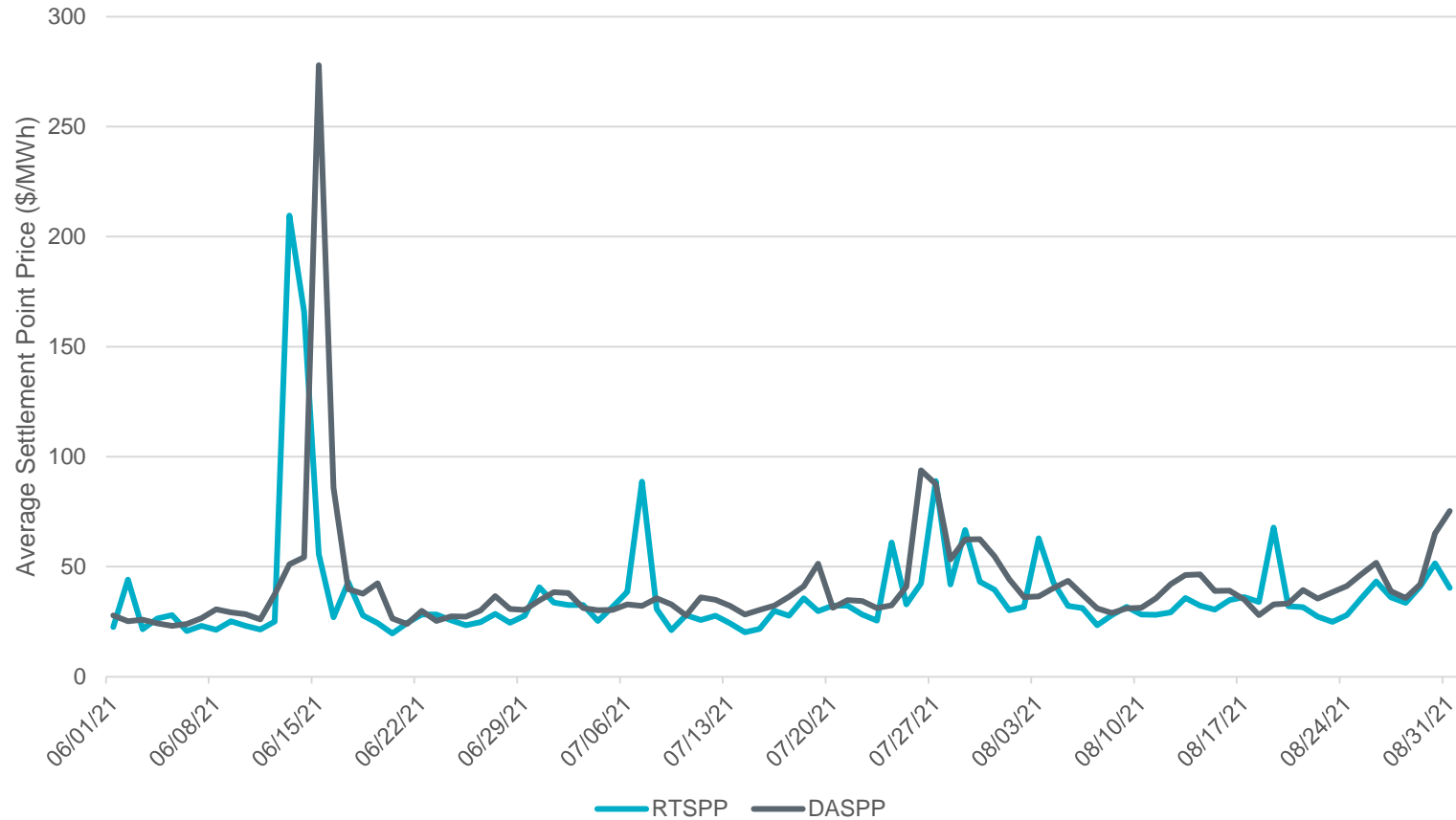


Detail of \$0/MWh to \$200/MWh

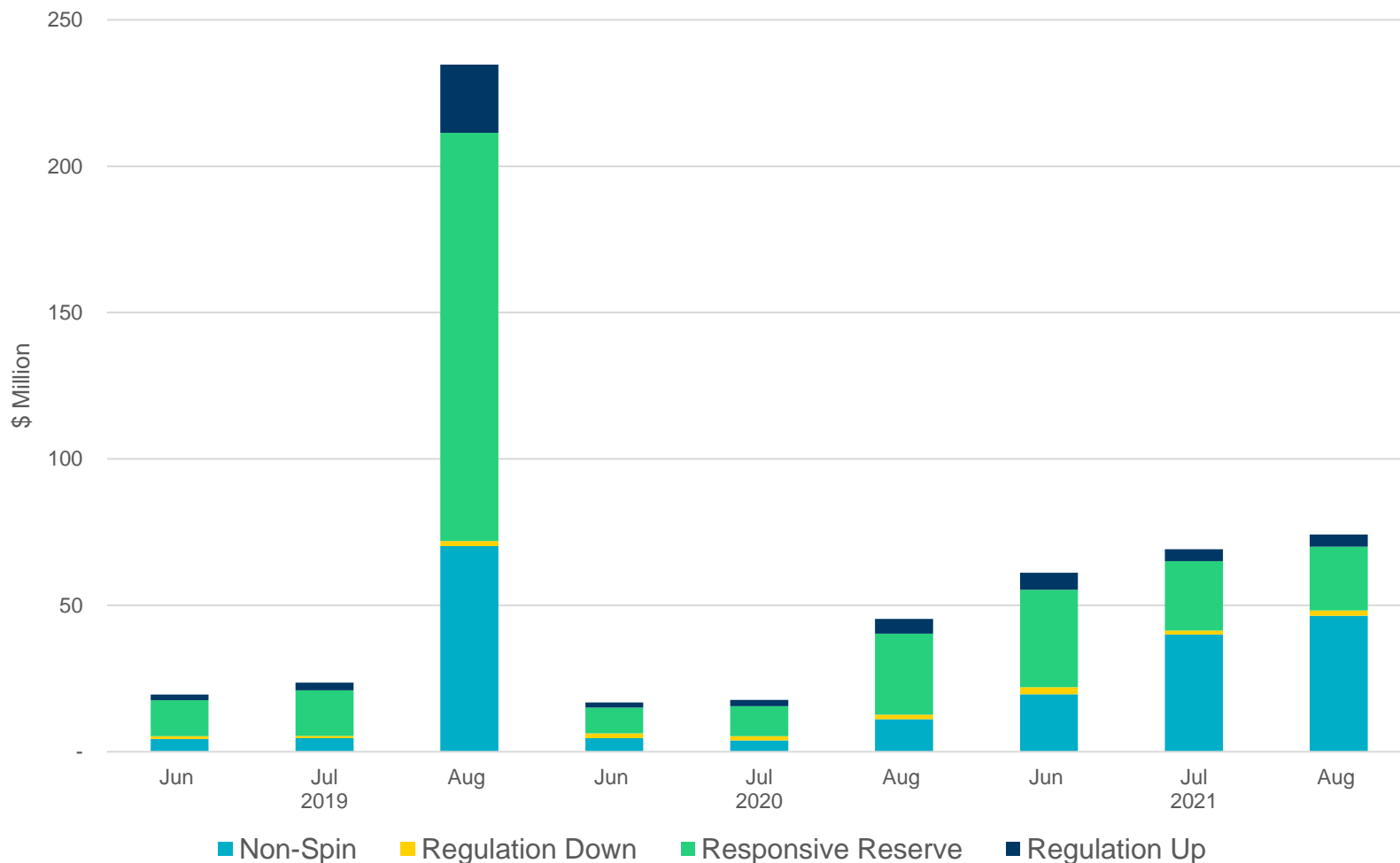


Daily Unweighted Average DAM and RTM Prices

- Day-Ahead and Real-Time Market price convergence remained within a normal range during summer 2021.



Cost for Ancillary Services



Total Potential Exposure, Collateral and Collateral Calls September 2020 – September 2021

