



# IMM Quarterly Markets Performance Report

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*Spring 2024 Report Highlights*  
*March 2024 – May 2024 outcomes*

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# Summary for Spring 2024

**Wholesale market costs** totaled \$1.10bn, a 23% decrease (down \$333m) on Spring 2023 costs of \$1.44bn, due to lower energy and capacity costs

- Energy market costs made up 68% of total wholesale costs; capacity costs made up 24%
- Decrease in **energy costs** (totaled \$0.76bn, down by \$142m or 16%) driven by lower natural gas prices
  - Energy market outcomes were generally consistent with changes in input costs, resource mix and load levels; slightly higher level of structural market power than previous spring, but supply offer mitigation occurred infrequently
  - Avg. day-ahead and real-time **Hub LMPs** were \$25.66 and \$24.64/MWh; 9-13% lower than in Spring 2023
  - Avg. **natural gas price** was \$1.60/MMBtu, down 29% on the Spring 2023 price of \$2.24/MMBtu, continuing the downward trend since early 2023
  - Effect of lower gas prices on LMPs was partially offset by fewer net imports (down 780 MW on last spring) and higher loads
    - Lower **net interchange** due to drier weather and lower water reservoir levels in Québec
    - Higher average **loads** (up 180 MW per hour) and peak load levels due to higher temperatures in May
- **Capacity market costs** were down by 38% (totaled \$259m, down by \$164m) on Spring 2023 due to lower clearing prices in FCA 14 (conducted in Feb. 2020)
  - Spring 2024 was the last quarter of the FCA 14 commitment period, with clearing prices of \$2.00/kW-mo, lower than the FCA 13 price of \$3.80/kW-mo
  - Mystic 8 & 9 combined cycles (~1,400 MW) retired on May 31, after a 2-year cost of service agreement



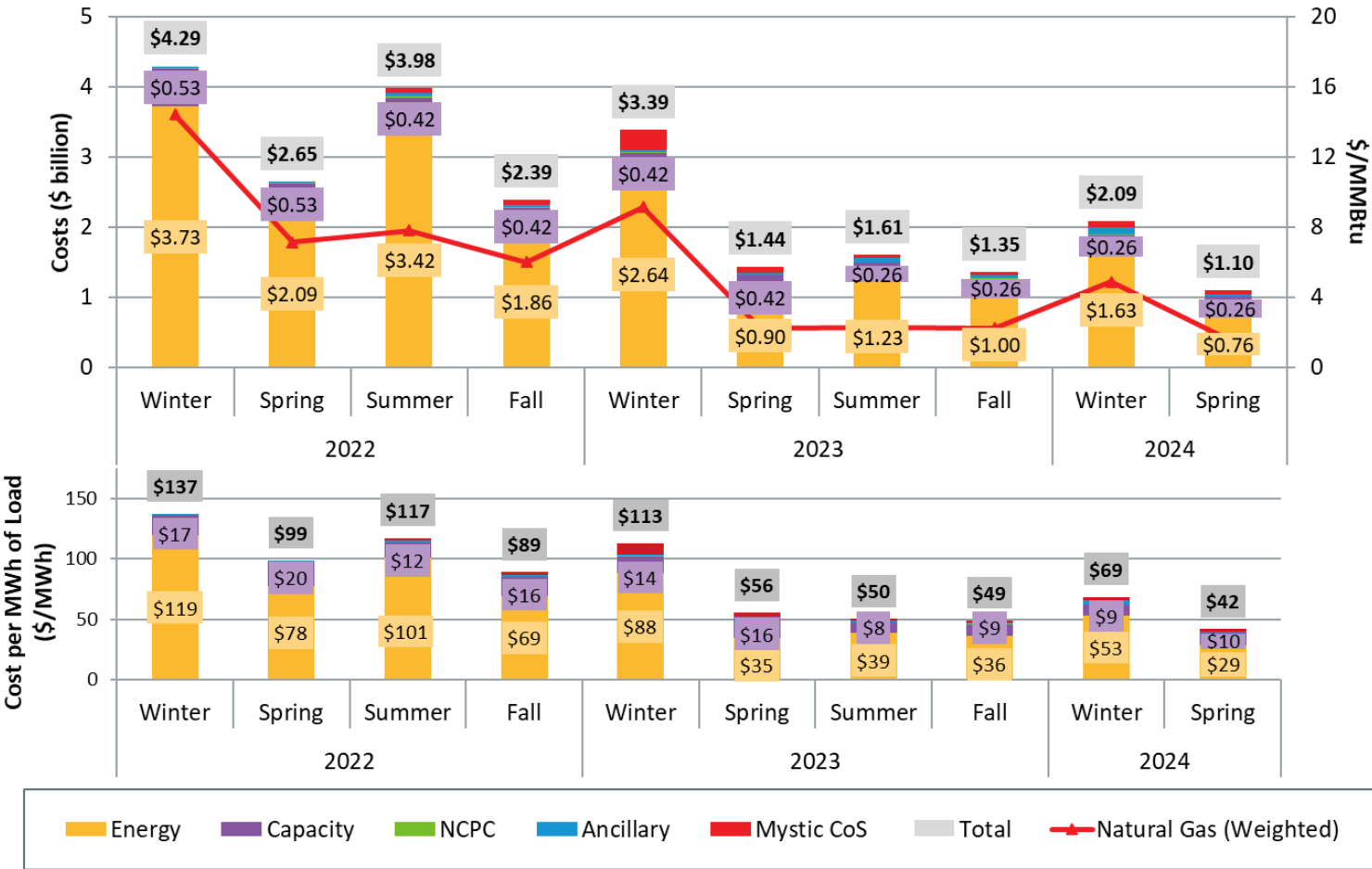
# Summary for Spring 2024 (cont.)

- **Real-time reserve payments** were at the low end of the historical range at just \$0.6m, down from \$0.9 million in Spring 2023, and reflective of high margins and the absence of major instances of stressed conditions
  - Most payments (97%) were for ten-minute spinning reserves; lower price of \$6.98/MWh was consistent with lower natural gas and real-time energy prices
  - Less than one hour of non-zero pricing for 10-min (avg. price of \$30/MWh); no non-zero 30-min pricing
- Total **regulation payments** were \$2.4m, down by \$2.4m (50%) compared to Spring 2023
  - Decrease primarily reflected lower regulation capacity prices, which resulted from lower energy market opportunity costs (decreased LMPs in Spring 2024) and lower regulation offers
- **Uplift or Net Commitment Period Compensation (NCPC)** costs totaled \$4.6m, up by 18% (by \$0.7m) on the prior spring
  - Uplift represented just 0.6% of total energy costs, in line with historical values; all payments went to resources economically committed and dispatched (“economic” uplift)
- **Forward Reserve Auction (FRA)** for the Summer 2024 was held in April 2024
  - TMOR and TMNSR products both cleared at prices of \$2,952/MW-month, significantly lower than in the Summer 2023 and 2022 auctions, and well below the revised offer/price cap of \$7,100
  - Summer auction value fell to \$26m (2024) from \$74m (2023)

Seasons: Winter: Dec-Feb    **Spring: Mar-May**    Summer: Jun-Aug    Fall: Sep-Nov

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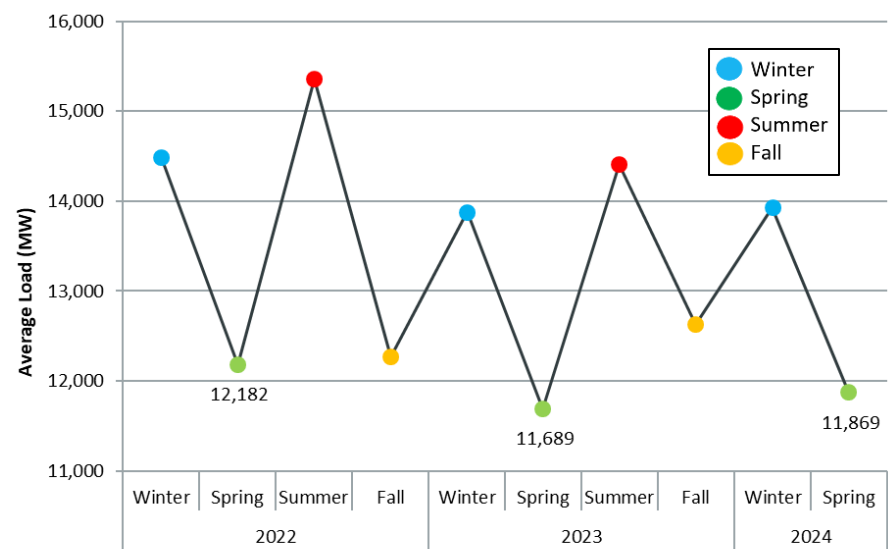
# Wholesale electricity cost down 23% on prior Spring; lower energy and capacity costs



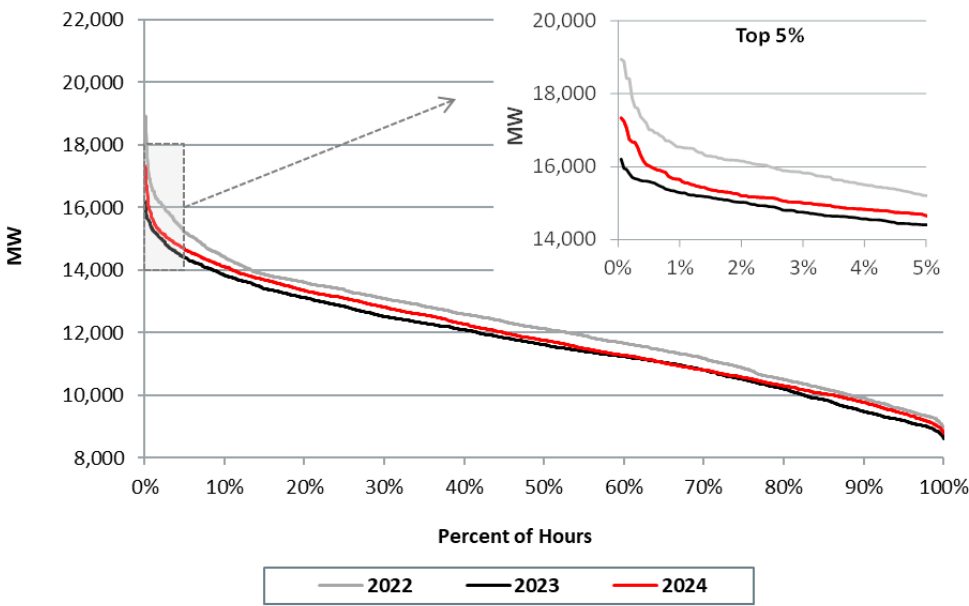
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# Average and peak loads up over previous spring due to higher temperatures in May

Average Hourly Load



Load Duration Curves

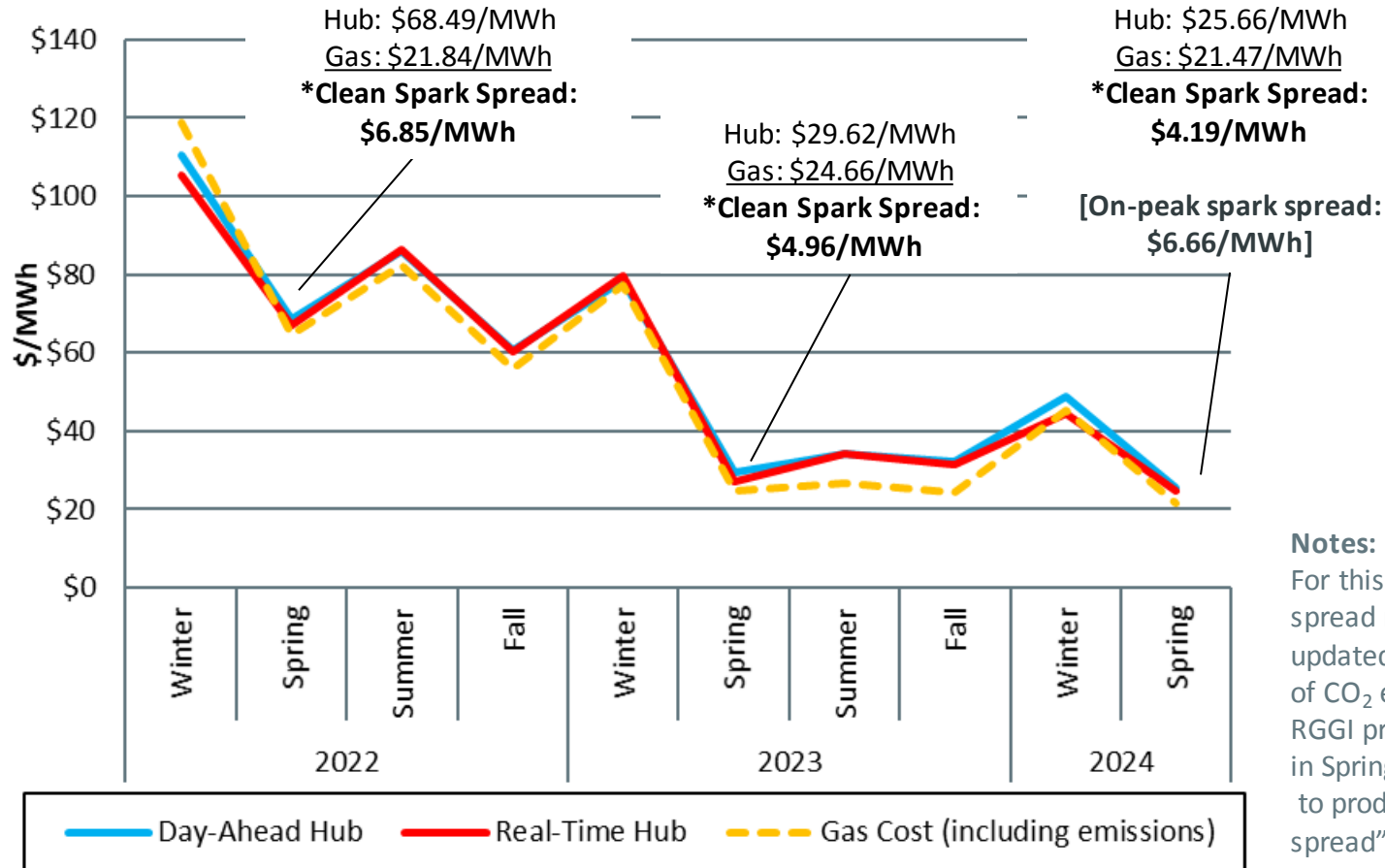


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# Slightly lower gas prices drove lower energy prices; fewer net imports and higher loads offset some downward pressure on LMPs

## Day-Ahead Prices (All Hours)



### Notes:

For this report, the spark spread metric has been updated to include the cost of CO<sub>2</sub> emissions in the RGGI program (\$8.80/MWh in Spring 2024) to produce a “clean spark spread”

Seasons: Winter: Dec-Feb

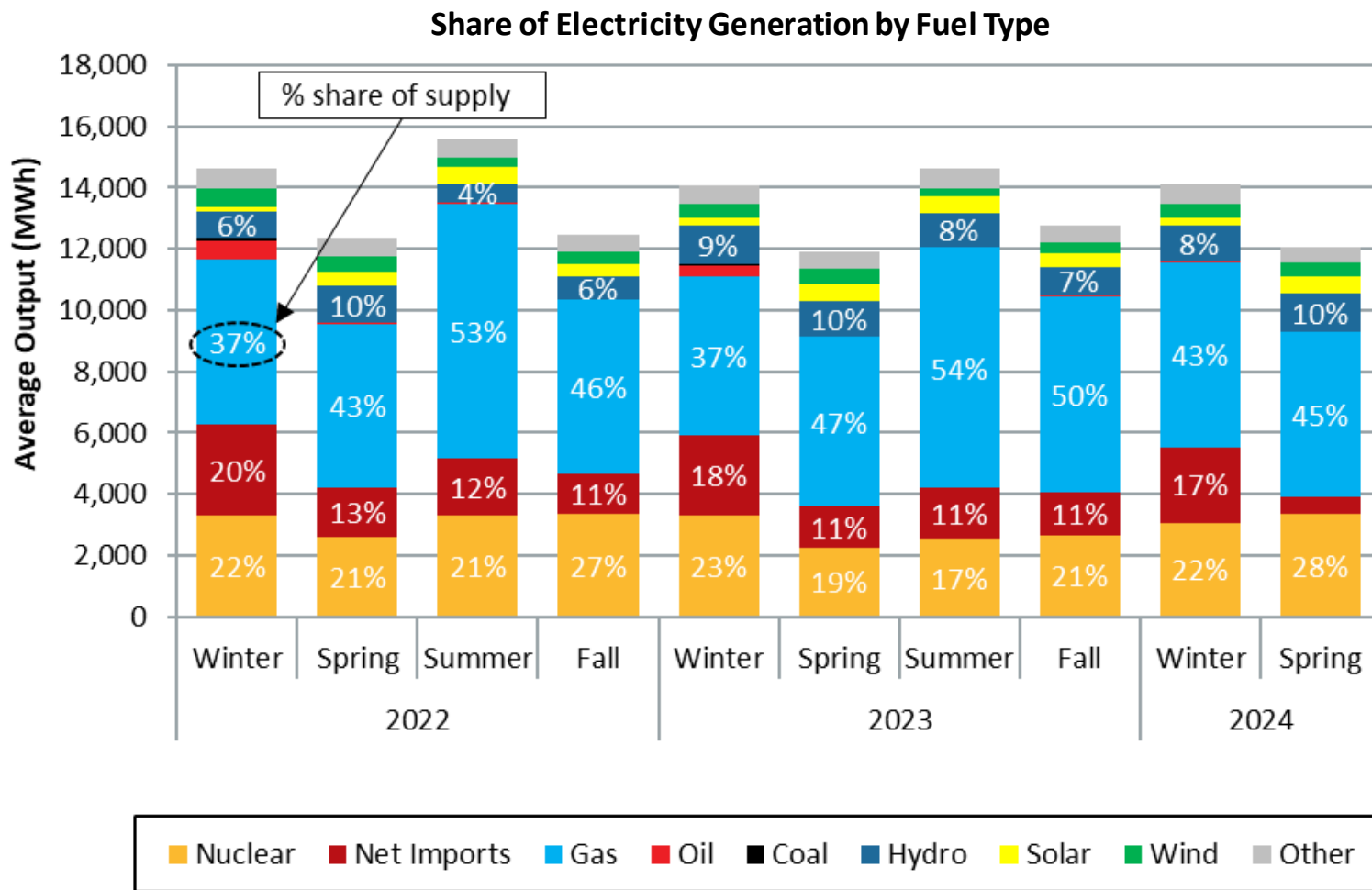
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# Increase in nuclear generation from Spring 2023 due to fewer outages; decrease in net imports



Note: the "Other" category includes energy storage, landfill gas, methane, refuse, steam, and wood

Seasons: Winter: Dec-Feb

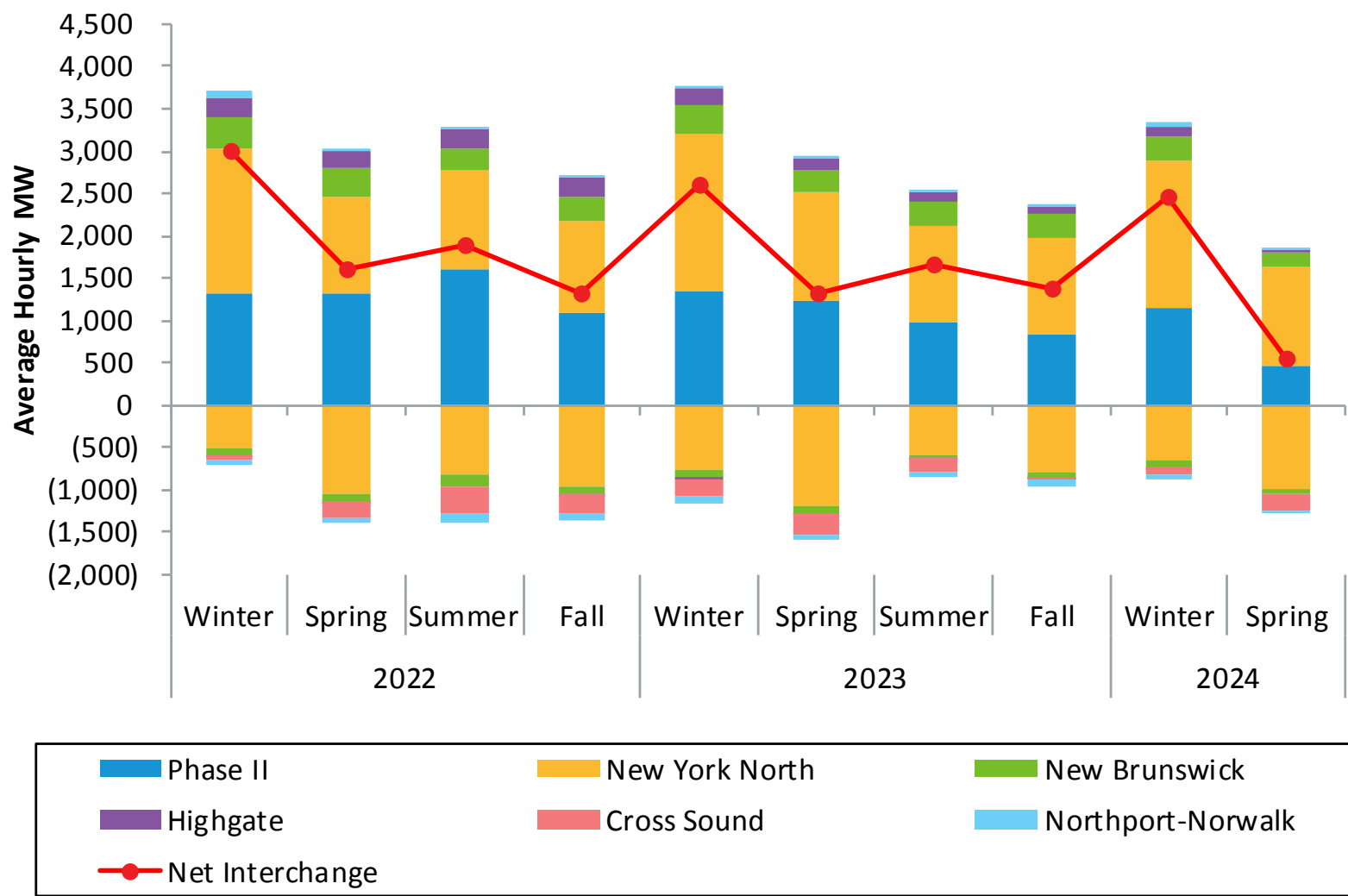
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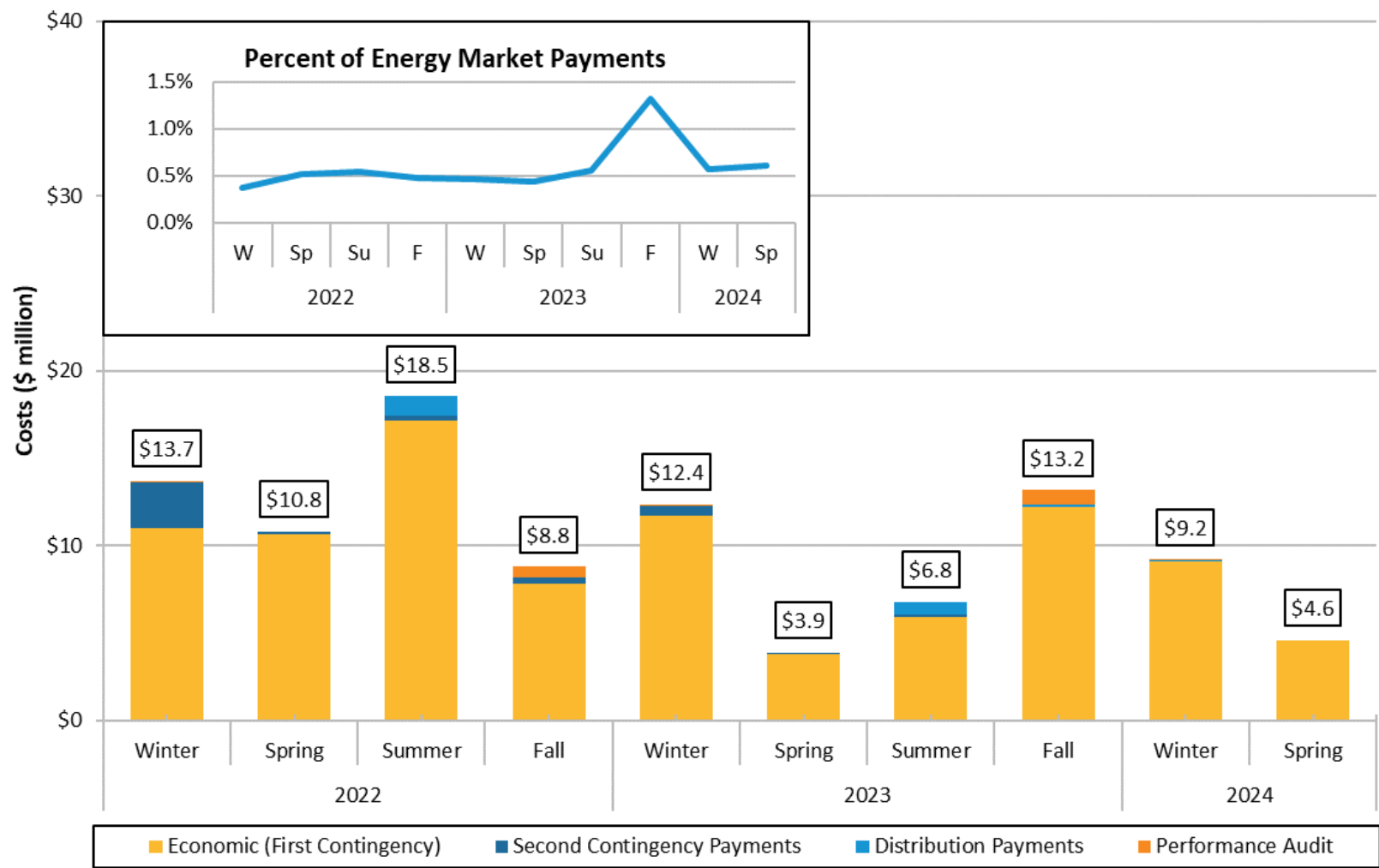
# Net interchange down 59% from prior spring due to low volumes of imports from Québec



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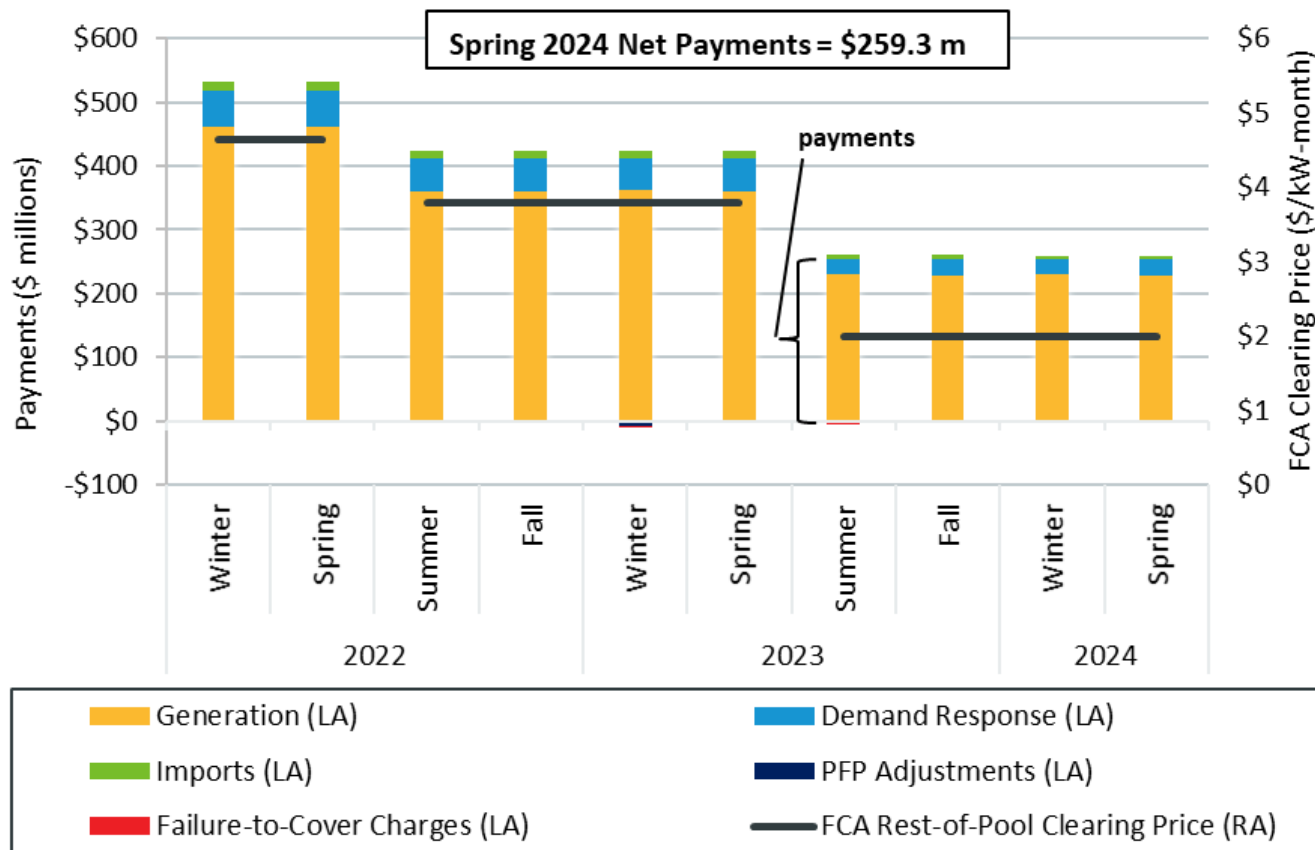
# Uplift payments remained relatively low; all payments covered economic commitments and dispatch



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# Fourth quarter of FCA14; lower clearing prices

FCA 14 prices: \$2.00/kW-month; was 47% lower than the previous year



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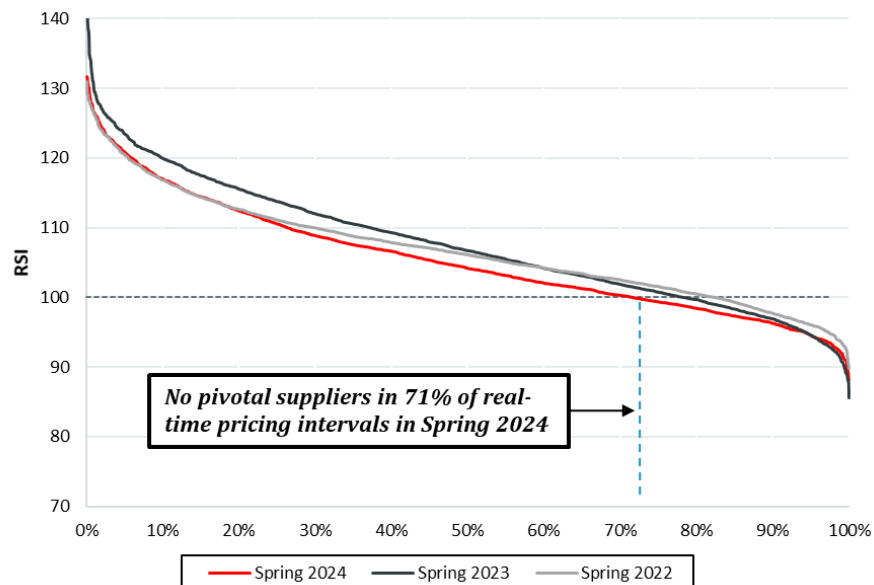
# Energy Market Competitiveness

- At least one pivotal supplier present in the real-time market for 29% of 5-minute intervals in Spring 2024 (vs 22% the previous spring)
- Presence of structural market power slightly higher than in Spring 2023 due to slightly lower reserve margins (down ~250 MW to ~2,880 MW)
- The residual supply index for the real-time market in Spring 2024 was 105.5, indicating that on average, the ISO could meet load and the reserve requirement without energy and reserves from the largest supplier

Residual Supply Index and Intervals w/Pivotal Suppliers (RT)

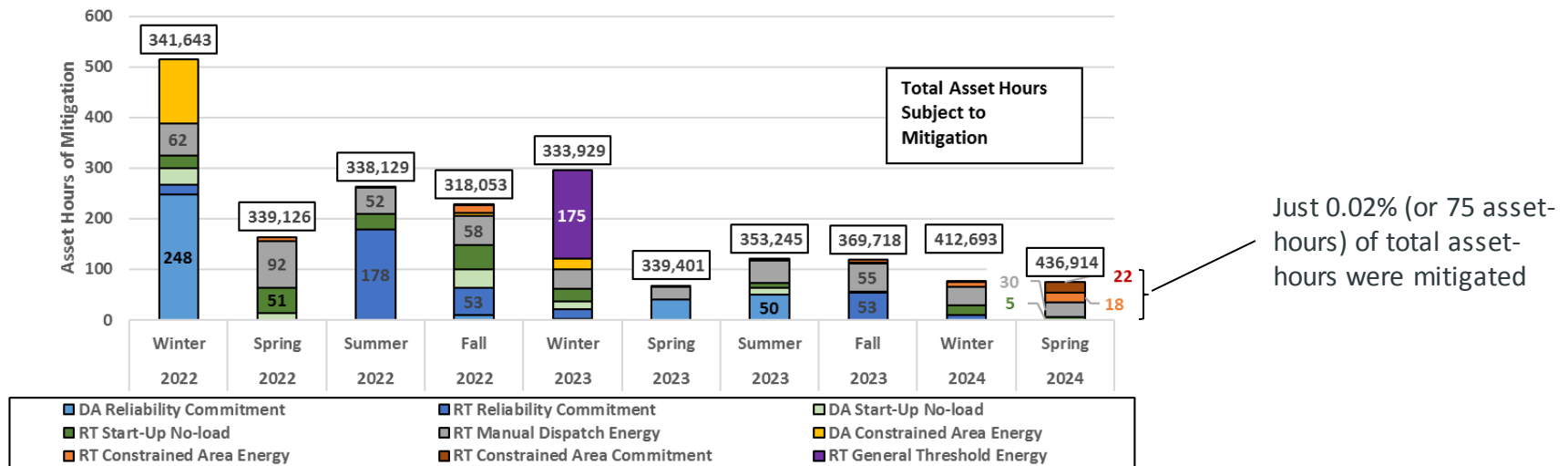
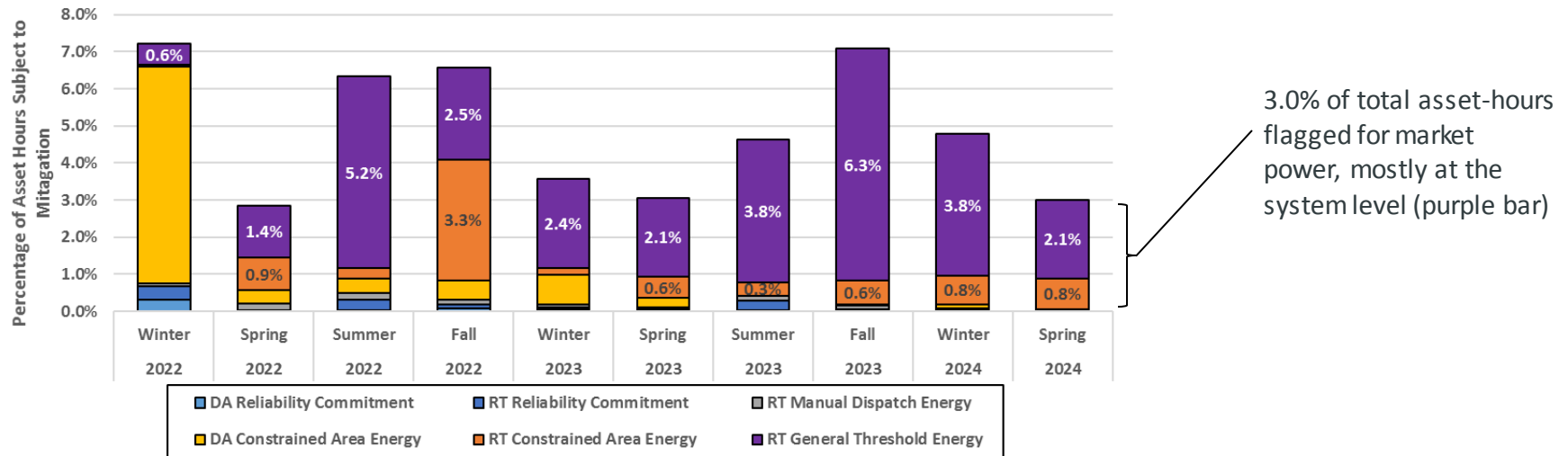
Quarter	RSI	% of Intervals With At Least 1 Pivotal Supplier
Winter 2022	106.5	12%
Spring 2022	106.7	19%
Summer 2022	102.6	34%
Fall 2022	104.0	28%
Winter 2023	105.2	20%
Spring 2023	107.7	22%
Summer 2023	103.8	34%
Fall 2023	98.9	60%
Spring 2024	105.5	29%

System-Wide Residual Supply Index Duration Curves



# Market Power Mitigation in the Energy Market

- In general, mitigation occurs very infrequently relative to the structural test failures



# Forward Reserve Market (FRM) Auction (FRA) prices for Summer 2024 dropped significantly

FRM Clearing Prices for System-Wide TMNSR and TMOR

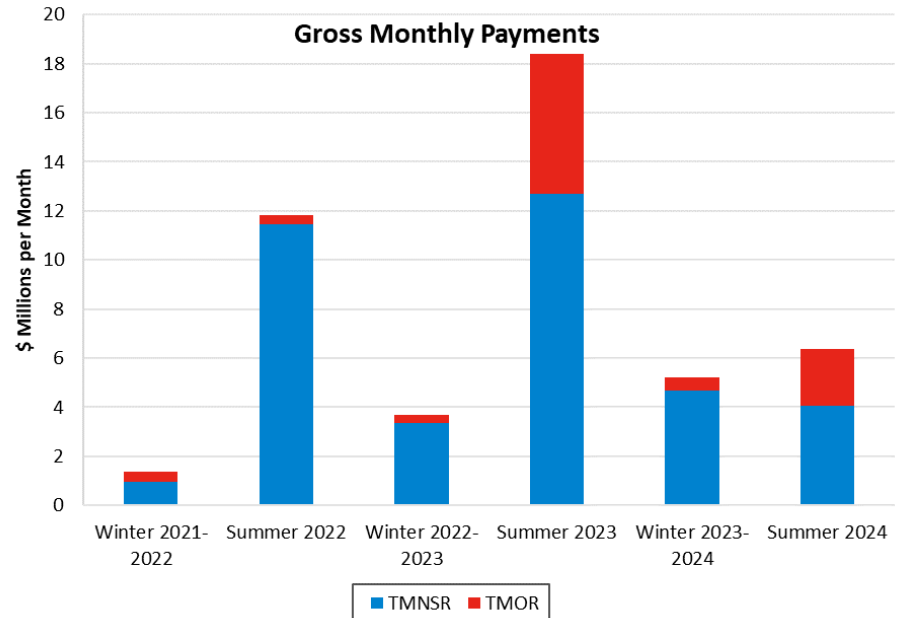


## Notes:

TMNSR = Ten Minute Non-spinning Reserve  
TMOR = Thirty Minute Operating Reserve

Winter = October through May  
Summer = June through September

Gross Monthly FRM Payments and Auction Value



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# Questions

