



RIVERSIDE PUBLIC UTILITIES

Board Memorandum

BOARD OF PUBLIC UTILITIES

DATE: JUNE 23, 2025

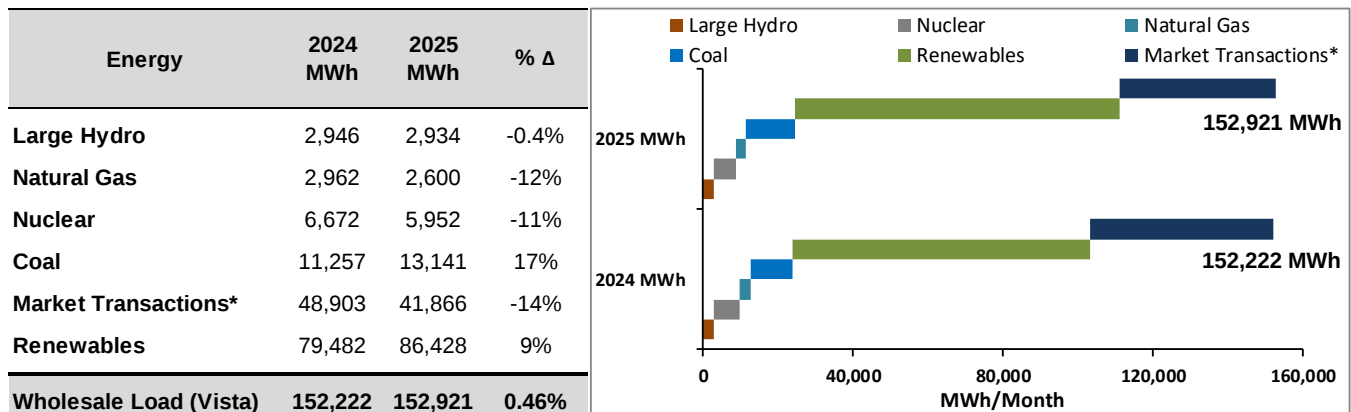
GENERAL MANAGER'S REPORT

SUBJECT: MONTHLY POWER SUPPLY REPORT – APRIL 30, 2025

Monthly Power Usage:

April 2025 saw a modest increase of 0.46% in total wholesale load (Vista Substation) (152,921 MWh vs. 152,222 MWh in 2024). However, the composition of the energy supply shifted. Renewables increased by 9%, a rise from 79,482 MWh to 86,428 MWh, accounting for the majority of the year-over-year supply growth. This increase reflects improved solar and wind output. Coal generation increased by 17%, marking the largest percentage gain across resource types. Market transactions decreased by 14%, suggesting a reduced dependence on energy purchases, largely due to more favorable renewable output during Spring months. Natural gas generation decreased by 12%, falling from 2,962 MWh to 2,600 MWh, continuing a trend of displacing fossil fuels with cleaner alternatives during the Spring months. Nuclear output decreased by 11%, reflecting routine maintenance that affects capacity. Hydro output remained flat, down slightly by 0.4%, maintaining its consistent seasonal contribution.

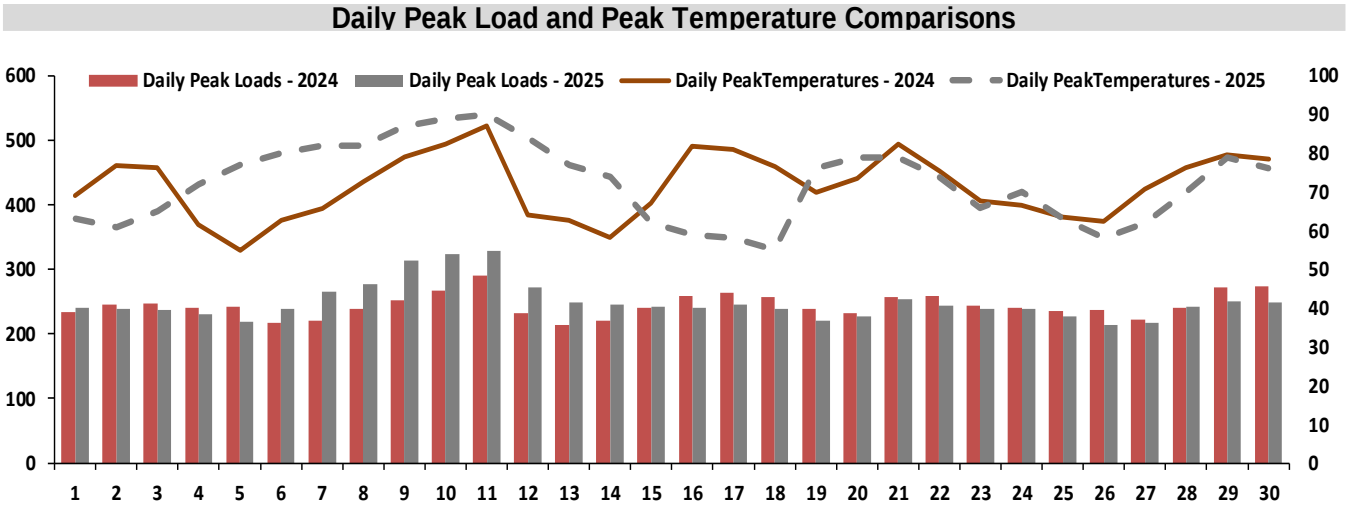
Wholesale Resource Mix - April 2024 vs 2025



* The Market Transaction category comprises bilateral power contracts and purchases(sales) from(to) the CAISO.

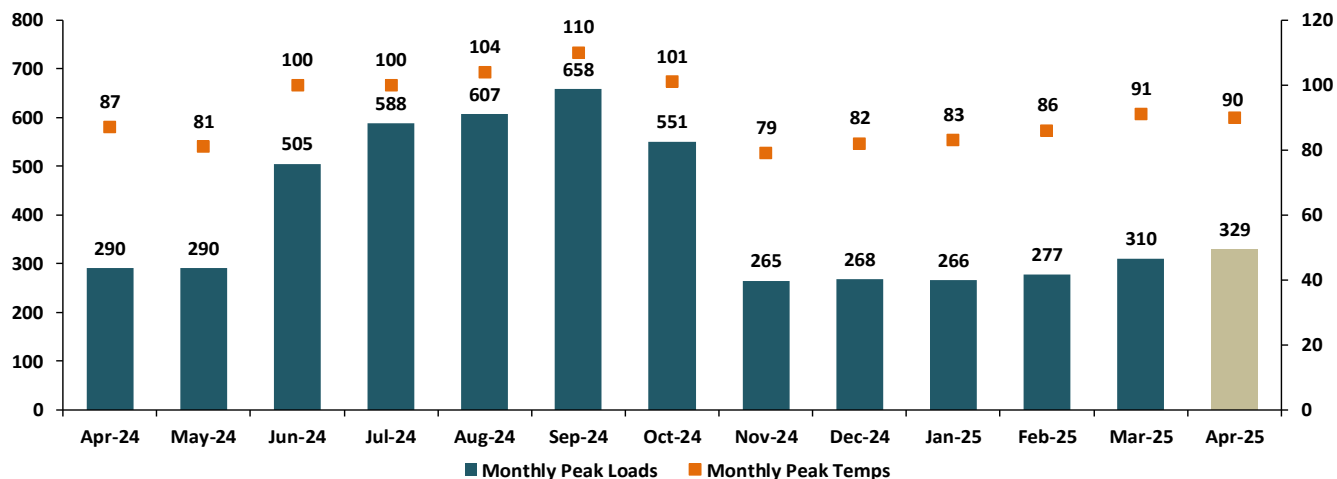
Daily & Monthly Load & Temperature Trends

Weather, especially the variable temperature, significantly impacts electricity demand. Typically, as temperatures increase, electricity demand will also increase, and vice versa. The charts below graphically extrapolate the correlation between weather and electricity demand. In April 2025, average daily peak temperatures oscillated around 72 degrees. In April 2024, average daily peak temperatures oscillated around 72 degrees. The monthly peak temperature reached 90°F in 2025, surpassing the 87°F peak in 2024 and reflecting more intense heat events during that month. While both years share similar average peak temperatures, 2025 experienced more days above 80°F, particularly a sharp spike on April 11, when it hit 90°F. However, this heat was not sustained, and temperatures dropped quickly in the subsequent days, reducing the potential for multi-day load buildup. Differences in the graphical representation of average temperatures may be due to variations in day-of-week effects or operational behaviors such as weekday versus weekend demand profiles.



Average load patterns were warmer in April 2025 compared to April 2024. In April 2025, the average daily peak load was 249 MW, with the monthly peak load reaching 329 MW. The average daily peak loads were 249 MW in 2025 and 245 MW in 2024. The monthly peak load was significantly higher in 2025 at 329 MW, compared to 290 MW in 2024, with April 11th marking the high load day in both years. The data suggest that April 2025 was both hotter and more demanding on Riverside’s system, but the brief nature of the heat spikes limited their sustained impact, keeping average load levels relatively close year-over-year.

Monthly Peak Load and Temperature

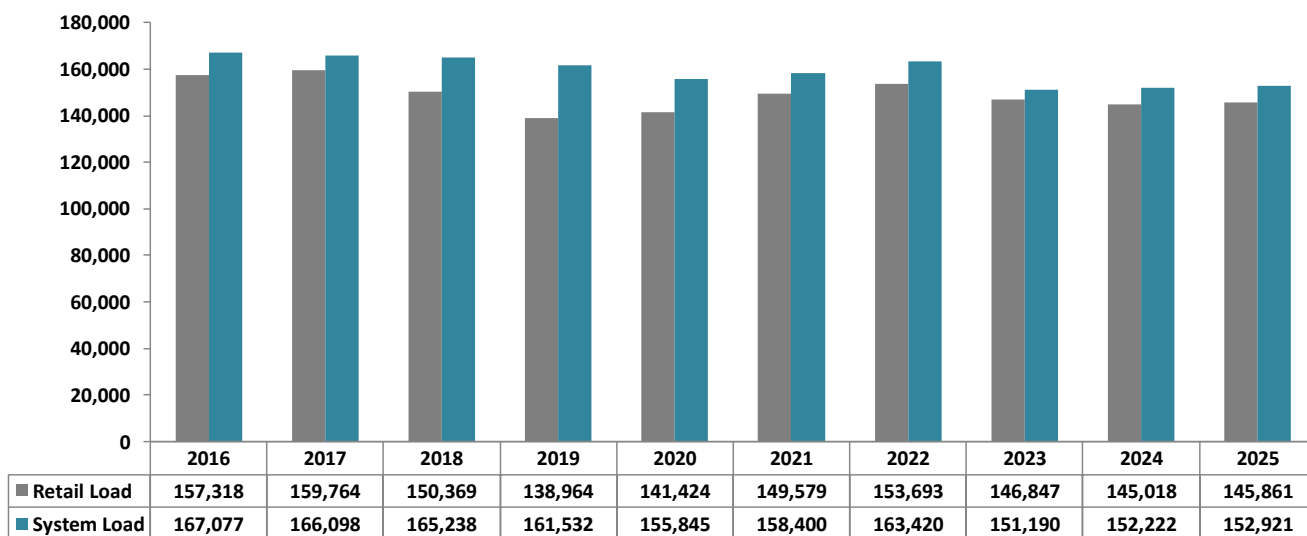


Hourly demand peaked at 329 MW on 04/11/25 HE 17, an increase of 39 MW compared to a peak of 290 MW the same month last year. Riverside's resources covered 85% of the hourly peak demand on 04/11/25.

10-Year Retail Load Trends

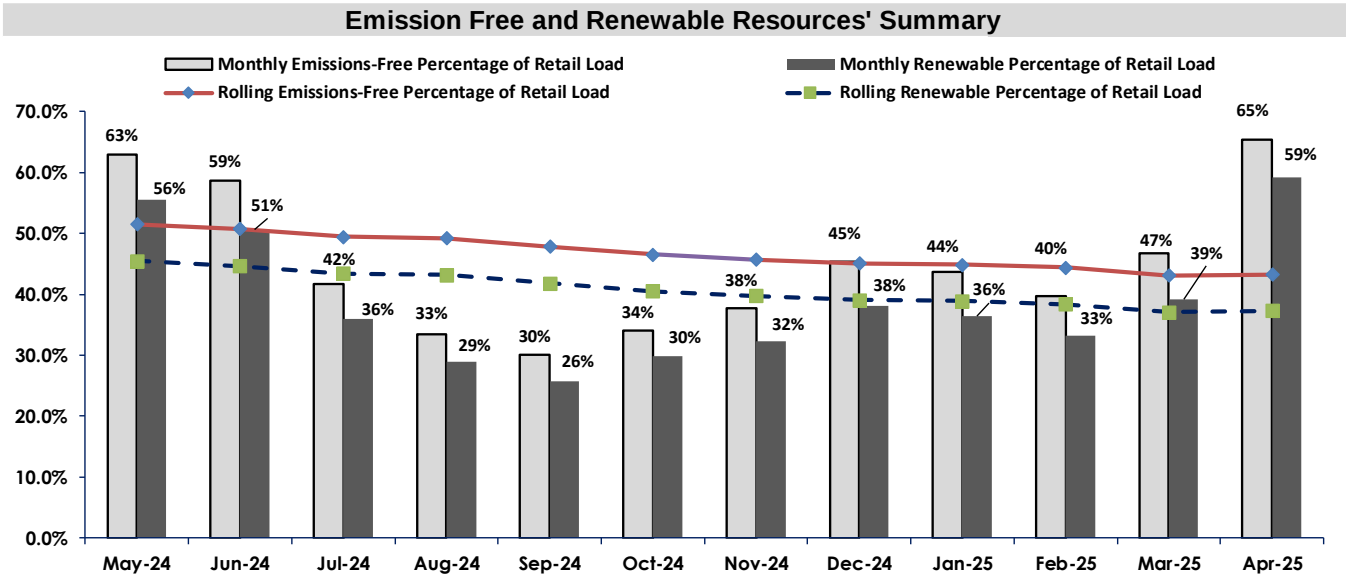
The retail load for April 2025 was 145,861 MWh, an increase of 843 MWh from the previous year's reading of 145,018 MWh. The System load for April 2025 was 152,921 MWh, an increase of 699 MWh from the prior year's reading of 152,222 MWh. The 10-year trend reflects a long-term flattening or slight decline in electricity demand, both at the retail and system levels, with occasional rebounds that could be attributed to weather and/or economic conditions. Retail load values can be impacted by the significant adoption of residential PV solar, efficiency programs, available meter data, losses, non-retail obligations, etc.

April Retail & System Loads (MWh/Month): 10-Year Trends



Renewable Generation Trends

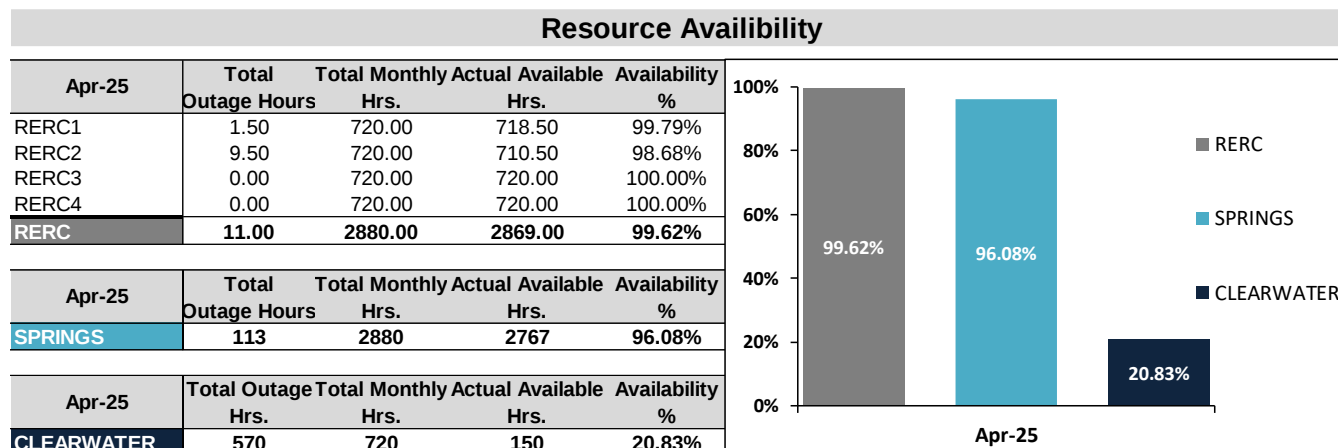
In April 2025, nuclear generation totaled 5,952 MWh, marking a 34.8% decrease from March 2025 (9,131 MWh) and a 10.8% decrease from April 2024 (6,672 MWh). This decline reflects seasonal maintenance schedules. Total hydroelectric generation experienced an increase of 27% compared to March 2025 (2,934 MWh vs. 2,303 MWh) yet showed a marginal 0.4% decline compared to April 2024 (2,946 MWh). The month-over-month rise reflects improved water conditions. In April 2025, wind generation totaled 3,662 MWh in April 2025, representing a 20.1% increase from March 2025 (3,048 MWh) and a 52% increase from April 2024 (2,405 MWh). This boost reflects favorable wind conditions during the month. In April 2025, solar generation reached 31,445 MWh across all facilities, increasing 23% from March 2025 (25,583 MWh) and 4% from April 2024 (30,149 MWh). The April peak aligns with seasonal solar production increases as daylight hours lengthen. In April 2025, the geothermal generation stood at 58,658 MWh, a notable 62.8% increase over March 2025 (36,025 MWh) and a 6% increase from April 2024 (55,229 MWh). This increase was prompted by the end of the Springs maintenance, increasing unit availability. In April 2025, renewable generation, as a percentage of retail load, increased by about 20 percentage points from March 2025 and increased by about 4 percentage points compared to April 2024. This reflects strong performance across solar, wind, and geothermal assets, and a modest change to retail load. Lastly, in April 2025, Emissions-Free generation, as a percentage of retail load, increased by about 19 percentage points from March 2025 and increased by 3 percentage points compared to April 2024. The Emissions Free and Renewable Resources summary graph reflects a rolling 12-month trend line.



*Riverside's emissions free resources are composed of renewables plus hydro and nuclear
*Riverside's renewable resources are composed of solar, wind and geothermal.

April 2025 Resource Availability - Internal Generation

- RERC's availability for the month was 99.62%.
- Spring's availability for the month was 96.08%.
- Clearwater's availability for the month was 20.83%.



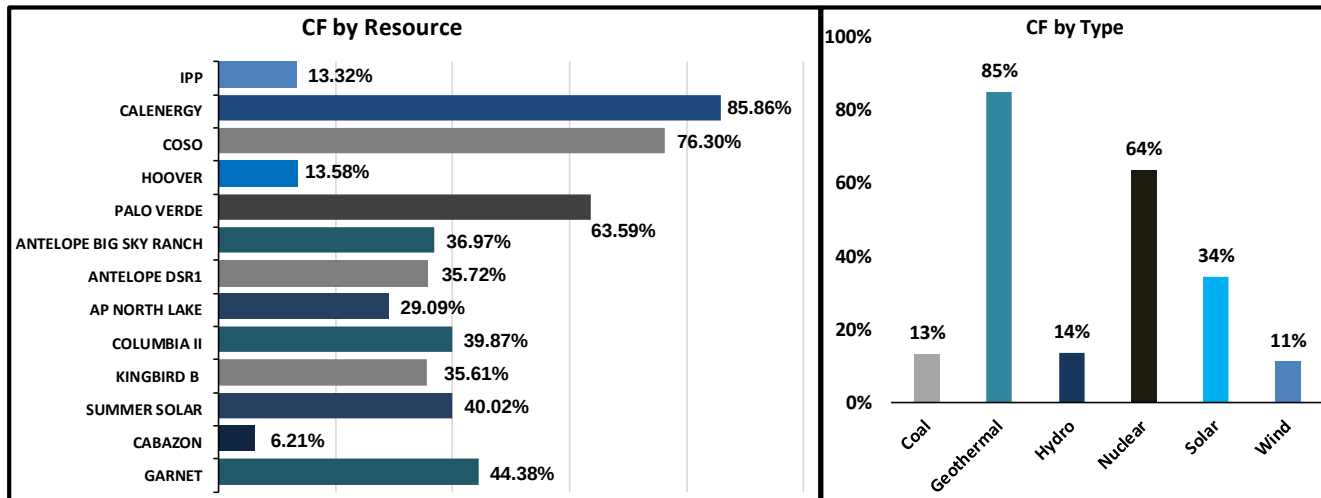
April 2025 Resource Availability – External Resources

Solar resources in April 2025 exhibited capacity factors ranging from 21.45% to 40.02%, reflecting strong seasonal irradiance across most sites. Wind resources showed greater variability, with capacity factors varying from a low of 6.21% to a high of 44.38%, underscoring the inherent intermittency of wind generation based on weather conditions. Riverside's share of Palo Verde nuclear output delivered steady performance, achieving a 63.59% capacity factor, indicative of reliable baseload generation despite being below the plant's typical maximum due to a maintenance outage. Hoover, a hydroelectric resource constrained by lake-level limitations, operated at a 13.58% capacity factor, consistent with its status as an energy-limited asset. IPP, Riverside's coal-based resource, maintained a 13.32% capacity factor due to coal availability limitations. Geothermal resources provided output with capacity factors ranging from 85.86% to 76.30%. It is worth reiterating that intermittent renewable resources, including wind and solar, have capacity factors influenced by natural factors such as cloud cover, blowing wind, etc.

Resource Capacity Factor Table

Apr-25	Resource Type	Max. Monthly MWH	Actual Energy MWH	Capacity Factors
IPP	Coal	98,640	13,141	13.32%
CALENERGY	Geothermal	61,920	53,165	85.86%
COSO	Geothermal	7,200	5,493	76.30%
HOOVER	Hydro	21,600	2,934	13.58%
PALO VERDE	Nuclear	9,360	5,952	63.59%
ANTELOPE BIG SKY RANCH	Solar	7,200	2,662	36.97%
ANTELOPE DSR1	Solar	18,000	6,429	35.72%
AP NORTH LAKE	Solar	14,400	4,189	29.09%
COLUMBIA II	Solar	8,021	3,198	39.87%
KINGBIRD B	Solar	10,080	3,590	35.61%
SUMMER SOLAR	Solar	7,200	2,881	40.02%
TEQUESQUITE	Solar	5,400	1,158	21.45%
CABAZON	Wind	28,080	1,745	6.21%
GARNET	Wind	4,320	1,917	44.38%

Resource Capacity Factor Charts



Resource Outages and Transmission Constraints

- RERC
 - Unit 1 packet inspection
 - Unit 2 plant maintenance
 - Unit 2 calibration and troubleshooting
- SPRINGS
 - Upgrade emissions monitoring system
- CLEARWATER
 - Spring outage - various electrical maintenance tasks
 - Cooling tower repairs
- PALO VERDE
 - Unit 1 outage for refueling