



# RIVERSIDE PUBLIC UTILITIES

## Board Memorandum

BOARD OF PUBLIC UTILITIES

DATE: DECEMBER 8, 2025

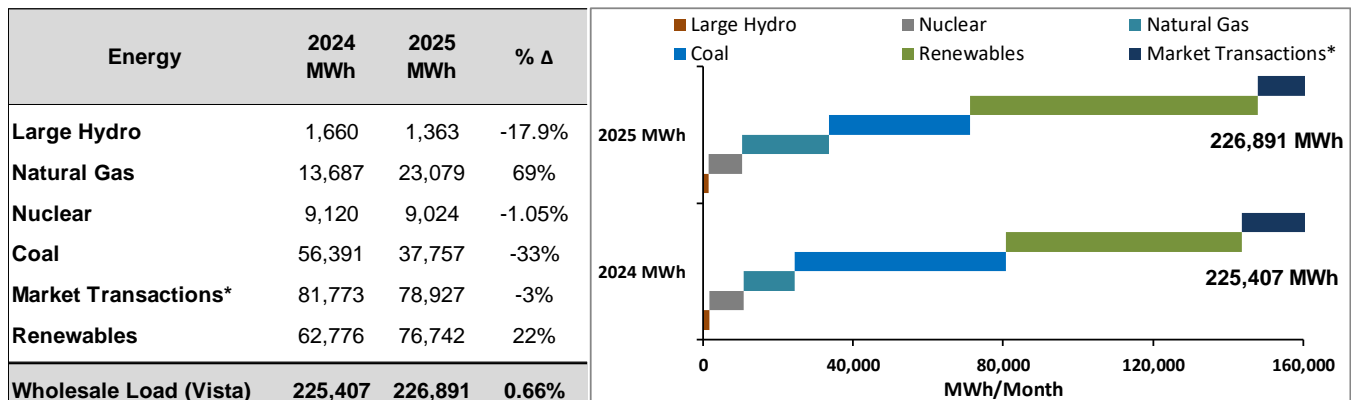
### GENERAL MANAGER'S REPORT

**SUBJECT: MONTHLY POWER SUPPLY REPORT – September 30, 2025**

#### Monthly Power Usage:

Total wholesale load at Vista Substation for September 2025 reached 226,891 MWh, a 0.66% increase from September 2024 (225,407 MWh). The resource mix shifted significantly because the IPP fuel source is transitioning from coal to natural gas. Natural gas generation rose 69% (from 13,687 MWh to 23,079 MWh), marking the largest absolute change in the resource portfolio. Coal generation declined 33% (from 56,391 MWh to 37,757 MWh), decreasing by 18,634 MWh year-over-year. Renewable output increased 22% (62,776 MWh to 76,742 MWh), adding 13,966 MWh to total supply. Large hydro output dropped 17.9% (from 1,660 MWh to 1,363 MWh), consistent with regional hydrological conditions affecting baseload hydro availability. Nuclear generation decreased 1.05% (from 9,120 MWh to 9,024 MWh), remaining relatively flat. Market transactions decreased 3% (from 81,773 MWh to 78,927 MWh), reducing wholesale purchases by 2,846 MWh. The decline in market purchases occurred despite increased load, highlighting higher renewable output and expanded natural gas capacity. This reduced Riverside's exposure to wholesale market price volatility.

**Wholesale Resource Mix - September 2024 vs 2025**

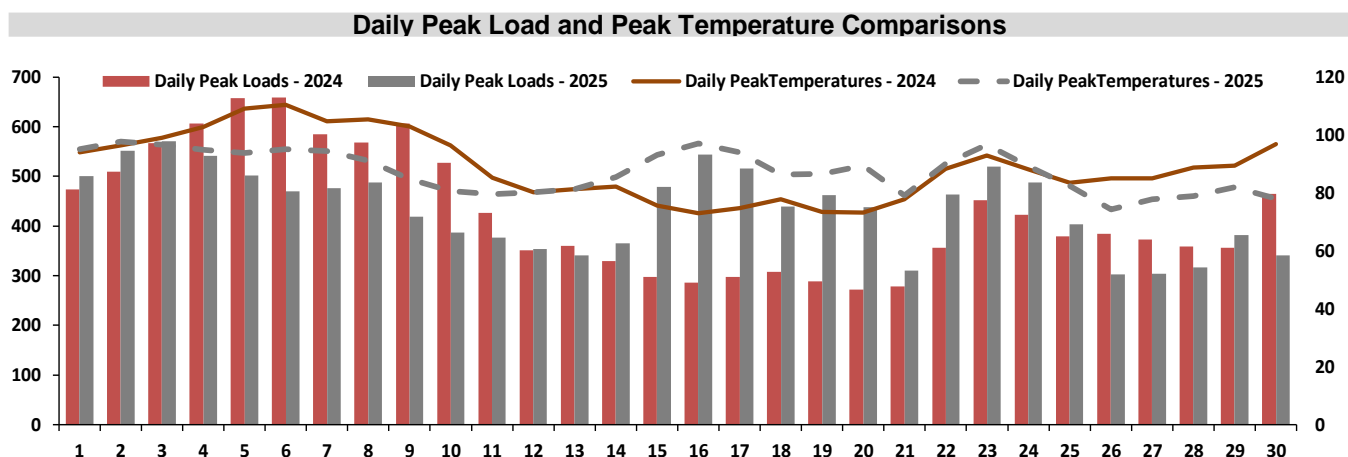


\* The Market Transaction category comprises bilateral power contracts and purchases(sales) from(to) the CAISO.

## 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. However, this temperature peak was not sustained, with cooler conditions following shortly thereafter, which helped prevent prolonged increases in load.

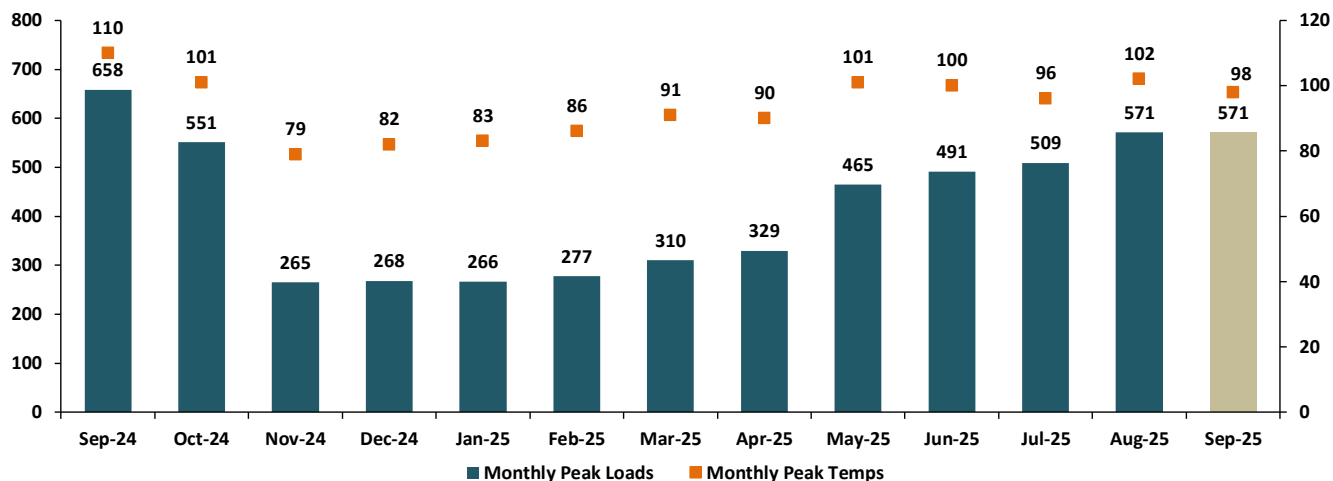
In September 2025, average daily peak temperatures reached 88°F, down from 89°F in September 2024. The monthly maximum temperature hit 98°F in 2025, significantly lower than the 110°F peak recorded in 2024. This 12°F decrease in extreme temperatures aligns with the early-month load differences shown in the chart below. September 2025 had 14 days with peak temperatures at or above 90°F, compared to 12 days in September 2024. This shows that 2025 experienced more days of sustained high temperatures despite a lower overall peak.



The chart displays temperature-sensitive load response patterns. Early September 2024 (days 1-10) showed higher peak loads linked to temperatures nearing 110°F. In contrast, peak loads in September 2025 remained more stable throughout the month, indicating a lack of extreme heat events. Mid-month periods (days 12-21) reveal convergence in both temperature and load profiles between the two years. Late September 2025 (days 22-30) shows higher temperatures compared to 2024, which leads to increased end-of-month loads in 2025. The average load patterns were slightly cooler in September 2025 compared to September 2024. In September 2025, the average daily peak load was 435 MW, slightly higher than the 427 MW average in 2024. The monthly peak load was lower in 2025 at 571 MW, compared to 658 MW in the previous year.

The 0.66% increase in total monthly load occurred despite marginally cooler average conditions, suggesting demand drivers beyond weather (economic activity, customer growth, or operational factors) influenced consumption patterns. The distribution of high-temperature days (14 vs. 12 days above 90°F) provided more consistent cooling demand in 2025, offsetting the impact of lower peak temperatures.

### Monthly Peak Load and Temperature

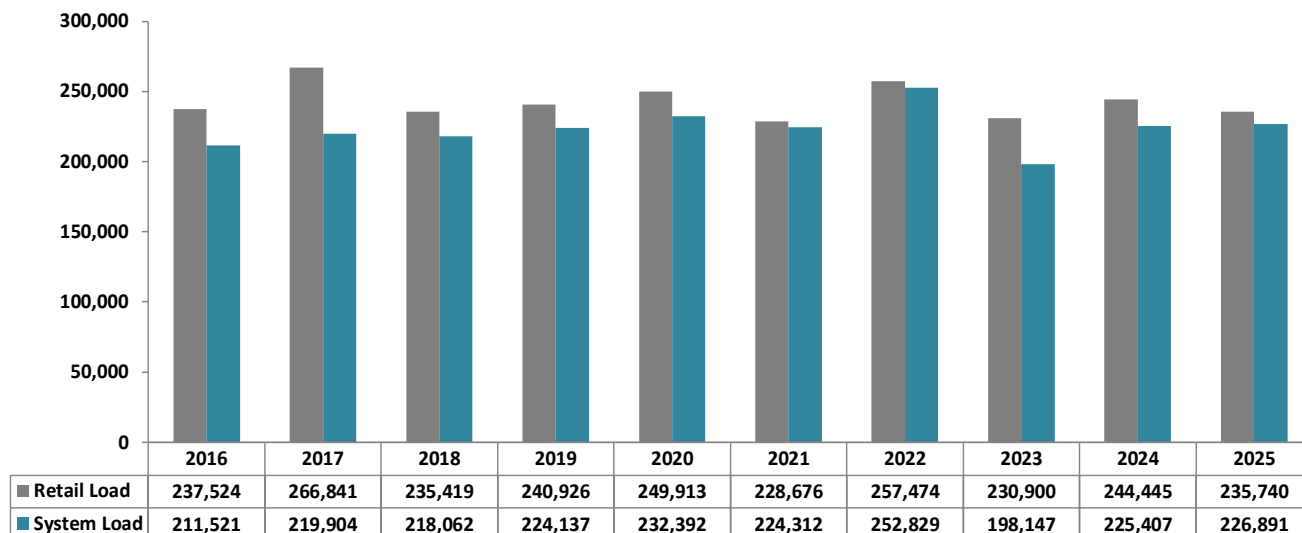


Hourly demand peaked at 571 MW on 09/03/25 HE 17, a decrease of 87 MW compared to a peak of 658 MW the same month last year. Riverside's resources covered 80% of the hourly peak demand on 09/03/25.

### 10-Year Retail Load Trends

The retail load for September 2025 was 235,740 MWh, a decrease of 8,705 MWh from the previous year's reading of 244,445 MWh. The System load for September 2025 was 226,891 MWh, an increase of 1,484 MWh from the prior year's reading of 225,407 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.

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

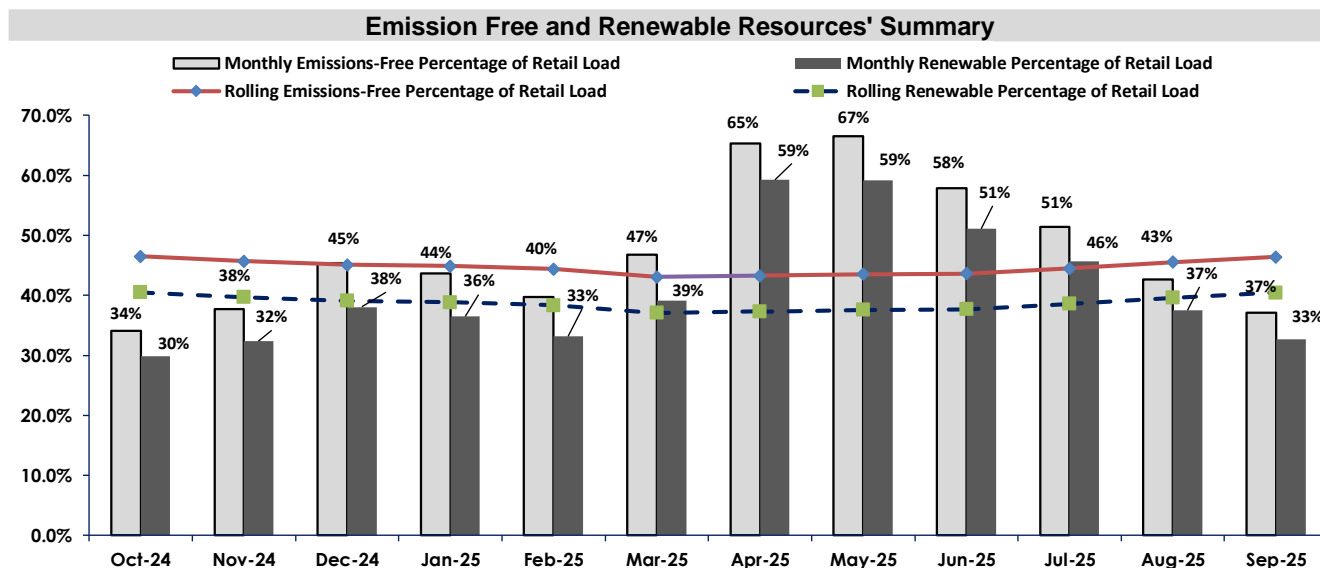


## Renewable Generation Trends

In September 2025, renewable generation, as a percentage of retail load, decreased by about 5 percentage points from August 2025 and increased by about 7 percentage points compared to September 2024. This decline in renewables from August 2025 to September 2025 reflects a combination of wind output, seasonal variation in hydro, and modest shifts in retail load. Lastly, in September 2025, Emissions-Free generation, as a percentage of retail load, decreased by about 6 percentage points from August 2025 and increased by 7 percentage points compared to September 2024.

Nuclear generation totaled 9,024 MWh, a 3.3 % drop compared to August 2025 (9,336 MWh), and a slight 1.1% decrease compared to September 2024 (9,120 MWh). Hydroelectric output declined significantly, falling to 1,363 MWh, a 22% drop from August and a slight 17.9% decrease year-over-year, likely due to changing hydrologic conditions. Wind generation totaling 1,912 MWh, represents a 25.8% decrease from August 2025 (2,576 MWh) and a 34% decrease from September 2024 (2,886 MWh). These decreases reflect mild wind conditions during the month. Solar generation reached 20,080 MWh, down 18.7% from August 2025 and a slight decrease of 1.4% from September 2024, driven by cooler temperatures than expected summer forecasts. Geothermal output reached 55,106 MWh, a 3.2% increase from August, but a strong 39% increase over September 2024 (unplanned outages).

The accompanying emissions-free and renewable resource summary chart below reflects values within the context of a rolling 12-month trend. While month-to-month variability is expected, the long-term trends remain supportive of emission-free resource development, with nuclear and geothermal continuing to provide consistent baseload support.

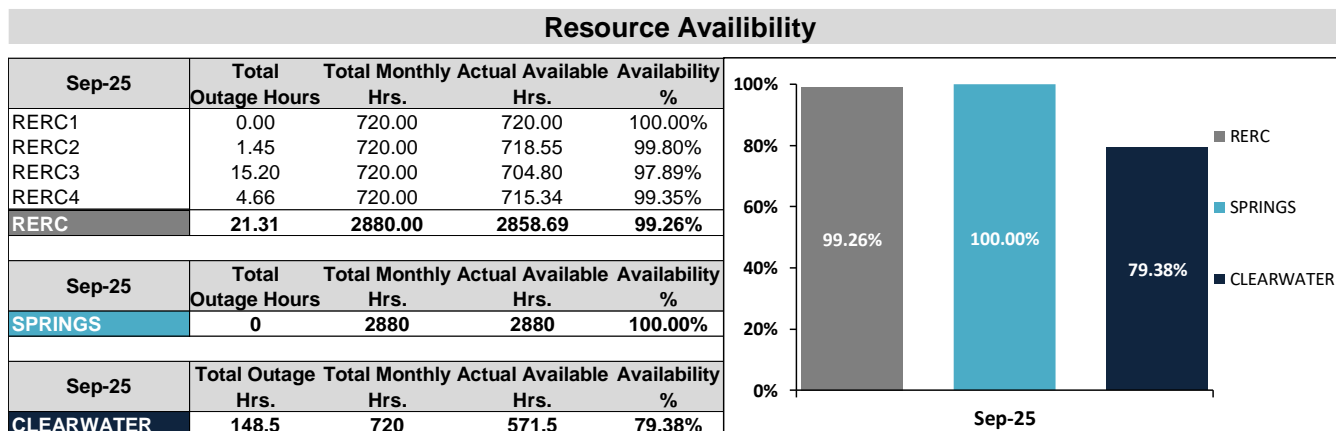


\*Riverside's emissions free resources are composed of renewables plus hydro and nuclear

\*Riverside's renewable resources are composed of solar, wind and geothermal.

### **September 2025 Resource Availability - Internal Generation**

- RERC's availability for the month was 99.26%.
- Spring's availability for the month was 100.00%.
- Clearwater's availability for the month was 79.38%.



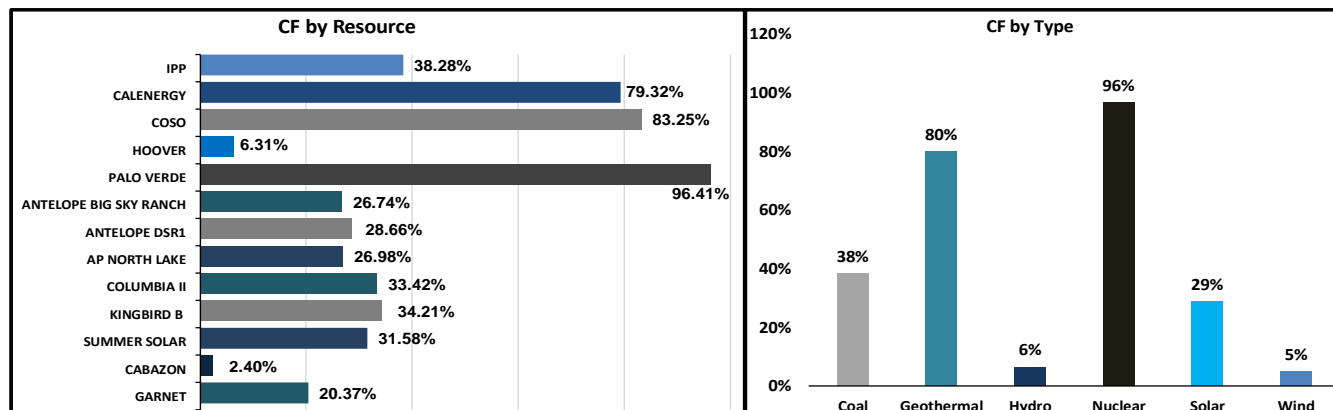
### **September 2025 Resource Availability – External Resources**

Solar resources in September 2025 exhibited capacity factors ranging from 13.10% to 34.21%, reflecting modest seasonal irradiance across most sites. Wind resources showed capacity factors varying from a low of 2.40% to a high of 20.37%. These values reflect lower wind conditions and further emphasize the intermittent nature of wind as a generation source. Riverside's share of Palo Verde nuclear output delivered steady performance, achieving a 96.41% capacity factor, indicative of reliable baseload generation. Hoover, a hydroelectric resource constrained by lake-level limitations, operated at a 6.31% capacity factor, consistent with its status as an energy-limited asset. IPP, Riverside's coal-based resource, maintained a 38.28% capacity factor due to coal availability limitations. Geothermal resources provided output with capacity factors ranging from 79.32% to 83.25%. 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

Sep-25	Resource Type	Max. Monthly MWH	Actual Energy MWH	Capacity Factors
IPP	Coal	98,640	37,757	38.28%
CALENERGY	Geothermal	61,920	49,112	79.32%
COSO	Geothermal	7,200	5,994	83.25%
HOOVER	Hydro	21,600	1,363	6.31%
PALO VERDE	Nuclear	9,360	9,024	96.41%
ANTELOPE BIG SKY RANCH	Solar	7,200	1,925	26.74%
ANTELOPE DSR1	Solar	18,000	5,159	28.66%
AP NORTH LAKE	Solar	14,400	3,886	26.98%
COLUMBIA II	Solar	8,021	2,681	33.42%
KINGBIRD B	Solar	10,080	3,449	34.21%
SUMMER SOLAR	Solar	7,200	2,274	31.58%
TEQUESQUITE	Solar	5,400	707	13.10%
CABAZON	Wind	28,080	675	2.40%
GARNET	Wind	4,320	880	20.37%

## Resource Capacity Factor Charts



## Resource Outages and Transmission Constraints

- RERC
  - Unit 2 to replace SPRINT solenoid
  - Unit 2 to replace Orifice replacement
  - Unit 3 issue with the feeder breaker for the gas turbine motor control center
  - Unit 4 to replace emergency gas detector
  - Unit 4 to replace IGW geometry control
- SPRINGS
  - None
- CLEARWATER
  - Tube leak inside boiler