



Solar Energy and Battery Energy Storage Help Lower Power Prices

Evidence from California and Texas
as electricity demand grows

October 2026

Key Takeaways

This analysis examined the weighted average hourly wholesale day-ahead price for June, July, and August 2021 vs the same time in 2026.

Both ERCOT and CAISO saw weighted daily average price drop substantially over that time.

- CAISO price declined 51% from 77.54 \$/MWh to 38.32 \$/MWh (2026 \$USD)
- ERCOT price declined 42% from 54.97 \$/MWh to 31.77 \$/MWh (2026 \$USD)

The decline in wholesale energy cost follows dramatic increases in electricity generation from solar and use of energy storage.

- Solar and storage increased the number of hours where they displaced very expensive peaker generation and the number of hours where they set the market-clearing price.

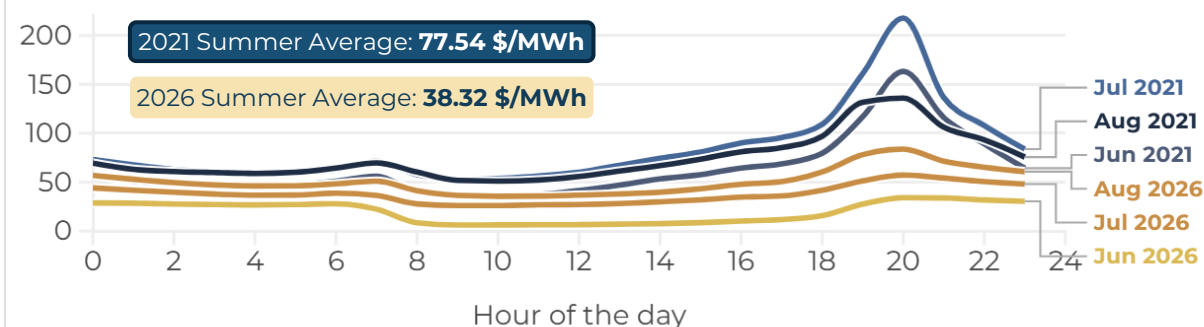
In this same time period, the generation cost portion of residential energy bill price are declining in both regions.

- California bill generation prices declined 10%. Increases in transmission and distribution drove up overall bill price 22%.
- Texas bill generation price declined 4%. Increases in transmission and distribution costs drove up overall bill price 3%.

Californians saved \$2.5 Billion and Texans saved \$3.55B due to the drop in wholesale energy prices.

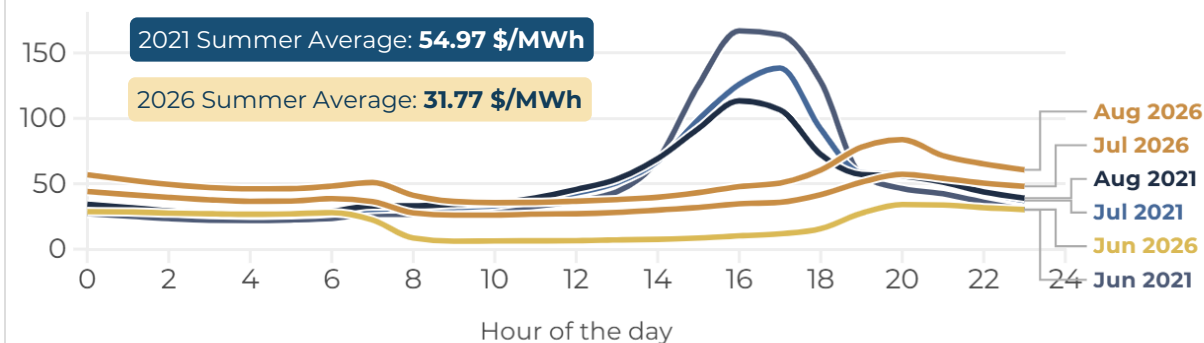
CAISO Weighted Daily Average Price

Avg. hourly wholesale price (2026 \$/MWh)



ERCOT Weighted Daily Average Price

Avg. hourly wholesale price (2026 \$/MWh)



California: \$2.5 Billion in savings due to solar and storage

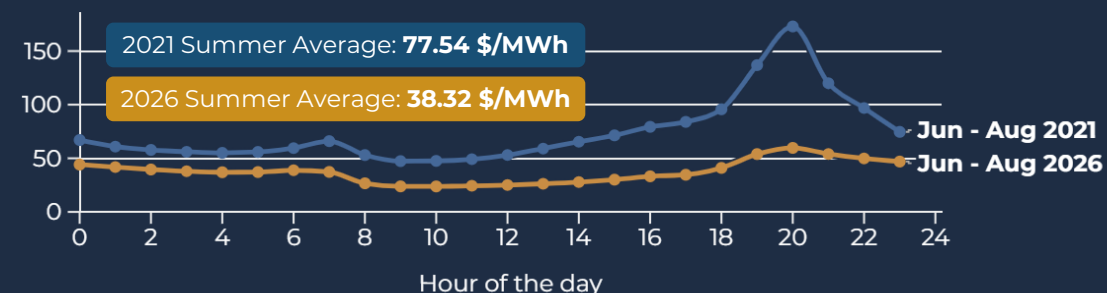
Average hourly price for the three summer months were much higher in 2021 than 2026.

Solar generation increased 90% over the five years. Battery storage grew from 8.1 GWh of installed capacity in 2021 to a total of 62.0 GWh installed through H1 2026. Batteries now provide 6%-7% of daily energy use in CAISO.

June - August 2026 **used 2.5% more power** than the same time in 2021 with an average wholesale **price 51% lower** after accounting for inflation. Californians **saved \$2.5B** due to the drop in wholesale energy price.

CAISO: Average June - August Weighted Daily Average Price

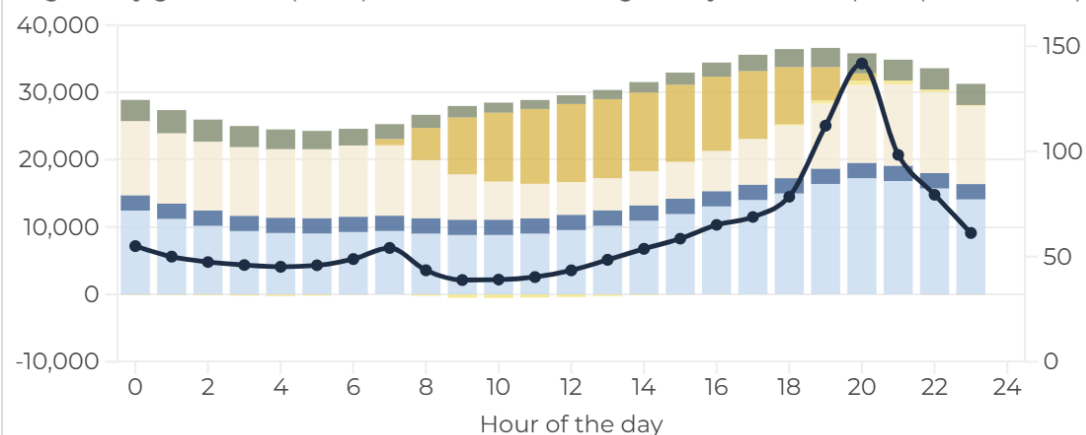
Avg. hourly wholesale price (2026 \$/MWh)



CAISO: June - August 2021

Avg. hourly generation (MWh)

Avg. hourly wholesale price (2026 \$/MWh)

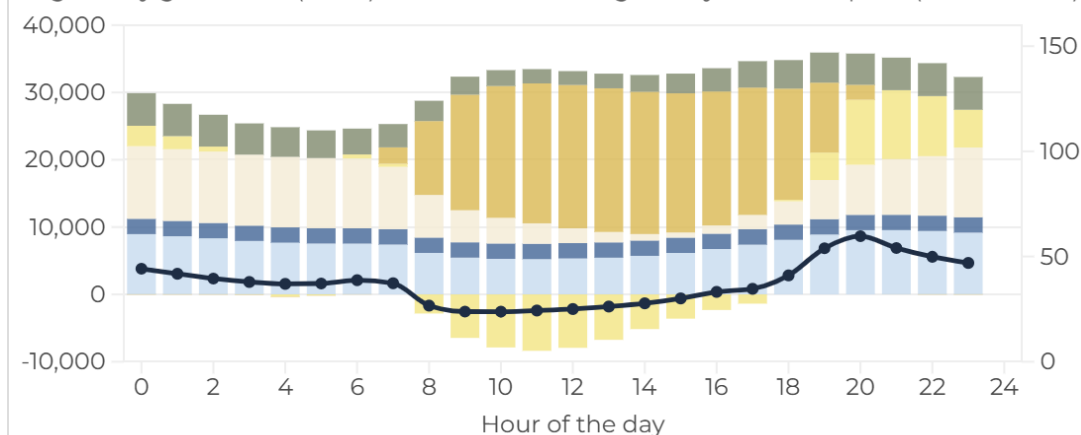


- Average wholesale price
- Nuclear
- Natural Gas
- Other
- Batteries
- Solar PV
- Wind

CAISO: June - August 2026

Avg. hourly generation (MWh)

Avg. hourly wholesale price (2026 \$/MWh)

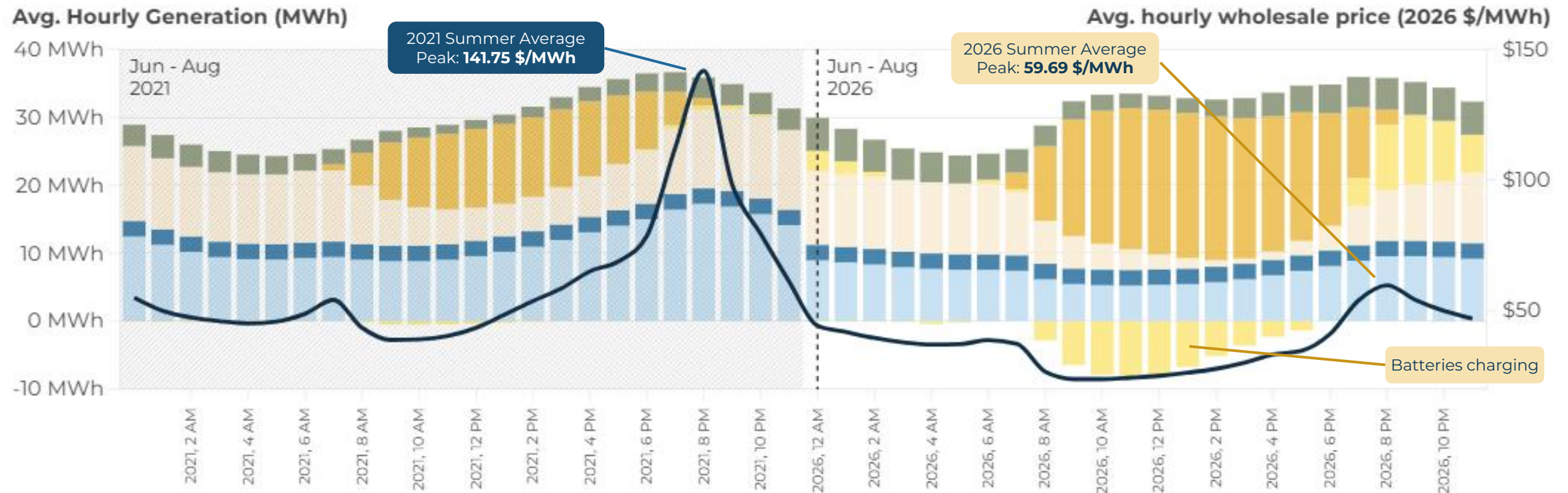


CAISO: Solar and storage drive down summer peak price

CAISO: Average Hourly Production and Hourly Wholesale Price

June - August 2021 vs. June - August 2026

● Average wholesale price (\$/MWh) ● Natural Gas ● Nuclear ● Other ● Batteries ● Solar PV ● Wind



Gridstatus.io, pulled in September 2026 for the following CAISO load zones: TH_NP15_GEN-APND, TH_SP15_GEN-APND, TH_ZP26_GEN-APND, DLAP_PACE_NPM-APND, DLAP_PACW_NPM-APND, DLAP_PGAE-APND, DLAP_SCE-APND, DLAP_SDGE-APND, DLAP_VEA-APND

CA Residential Bill Prices: Generation costs decreased as other costs rose substantially

Comparing the average bill price for PG&E and SCE in California for the same June-August 2021 to June-August 2026 time frame, data shows that generation costs have declined while transmission, distribution, and “other” costs have increased.

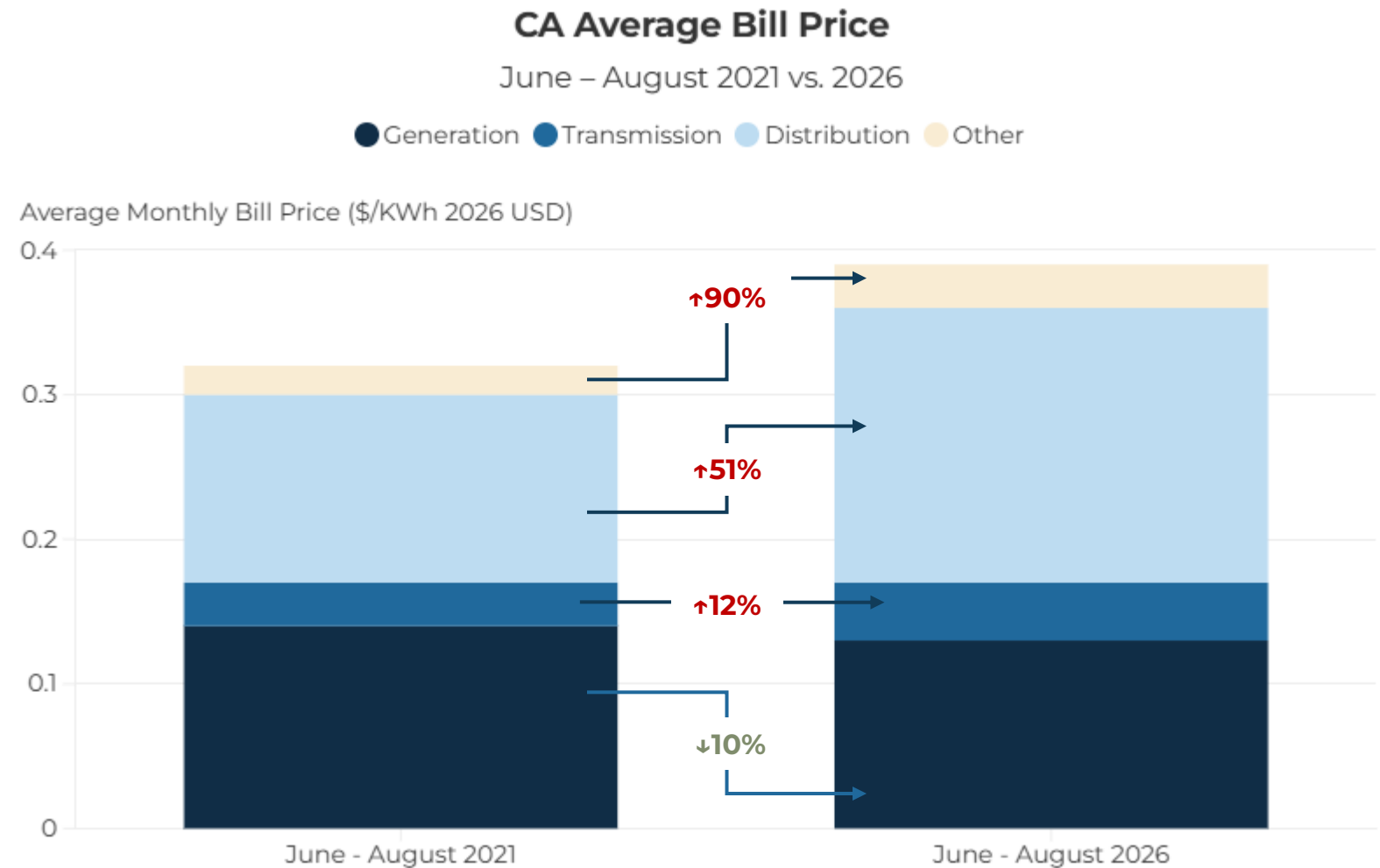
Generation costs dropped 10%

Transmission costs increased 12%

Distribution costs increased 51%

Other costs increased 90%,

- “Other” includes costs such as wildfire management.



Texas: \$3.55 Billion in savings due to solar and storage

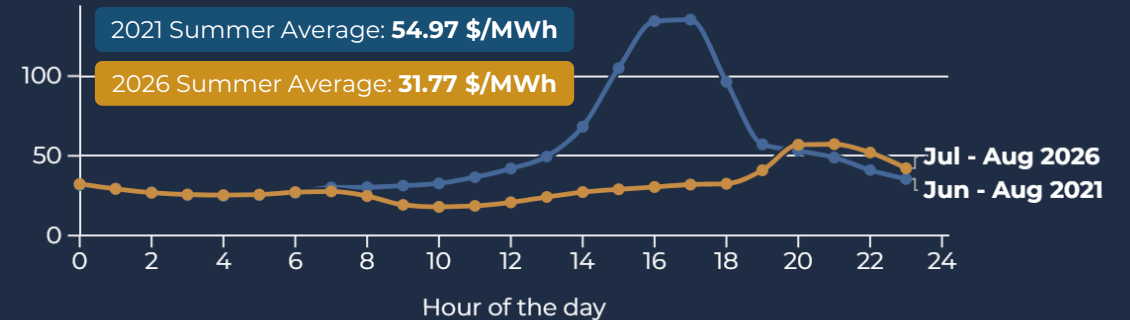
Average hourly price for the three summer months were much higher in 2021 than 2026.

Solar generation increased 421% over the five years. Battery storage grew from 1.0 GWh of installed capacity in 2021 to a total of 33.1 GWh installed through H1 2026. Storage now provides over 1.3% of energy.

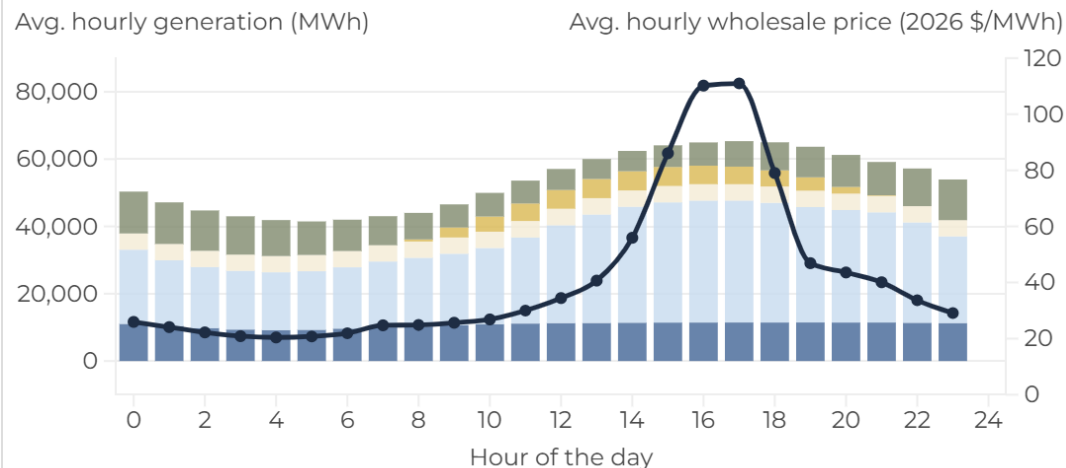
June-August 2026 **used 30.1% more power** than the same time in 2021 with an average wholesale price **42% lower** after accounting for inflation. Texans **saved \$3.55B** due to the drop in wholesale energy price.

ERCOT: Average June - August Weighted Daily Average Price

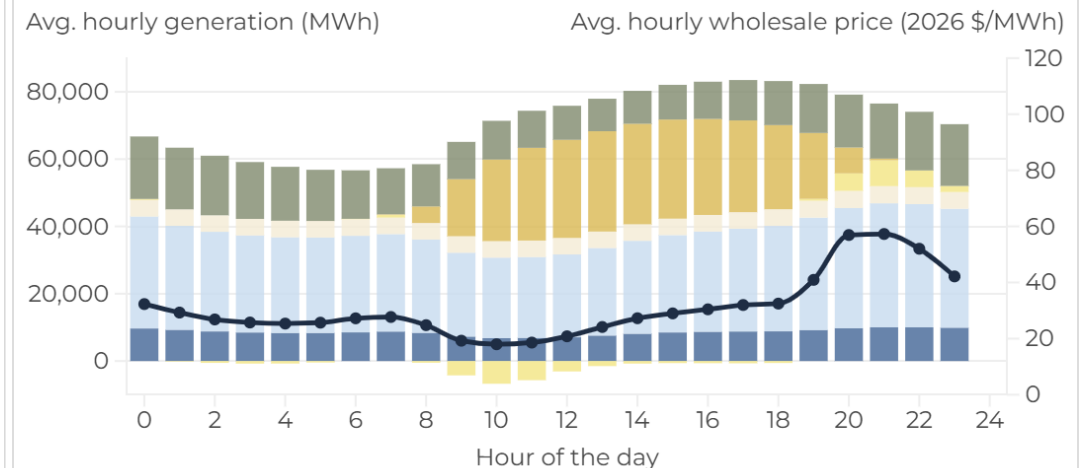
Avg. hourly wholesale price (2026 \$/MWh)



ERCOT: June - August 2021



ERCOT: June - August 2026

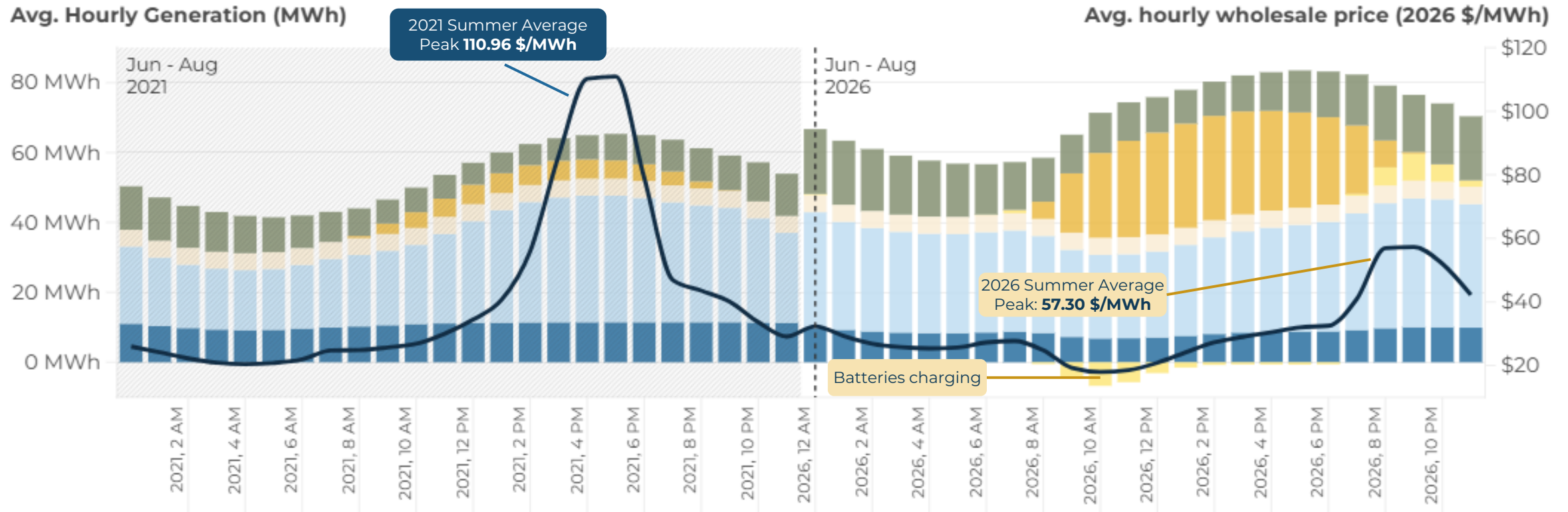


ERCOT: Solar and storage drive down summer peak price

ERCOT: Average Hourly Production and Hourly Wholesale Price

June - August 2021 vs. June - August 2026

● Average wholesale price (\$/MWh) ● Coal / Lignite ● Natural Gas ● Other ● Batteries ● Solar PV ● Wind



TX residential bill prices: generation costs declined while transmission and distribution costs drove up energy bills

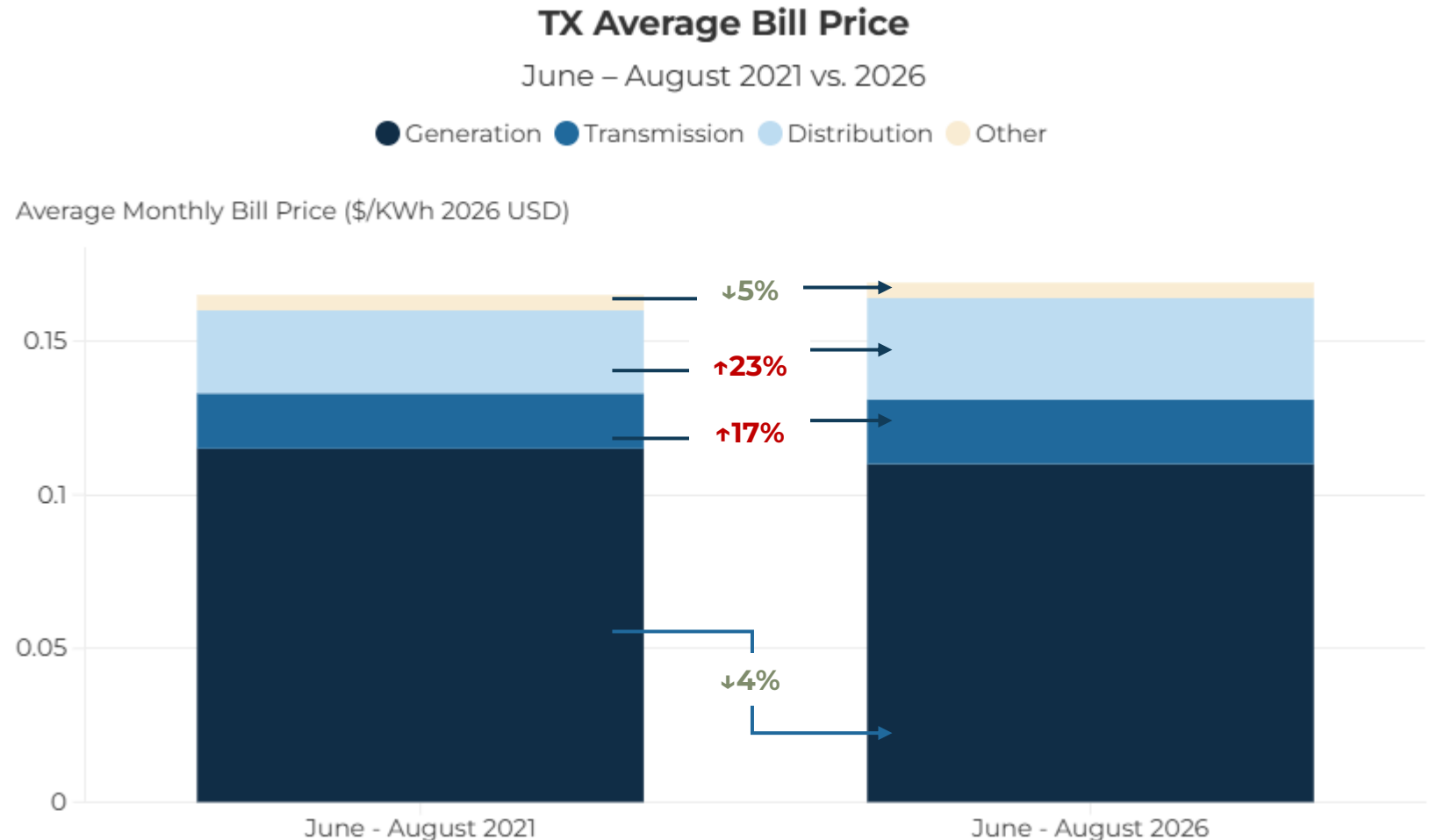
Comparing average bill price in Texas during the same Jun-Aug 2021 to Jun-Aug 2026 time frame, we can see that generation costs have declined while transmission and distribution costs have increased.

Generation costs dropped 4%

Transmission costs increased 17%

Distribution costs increased 23%

“Other” costs decreased 5%

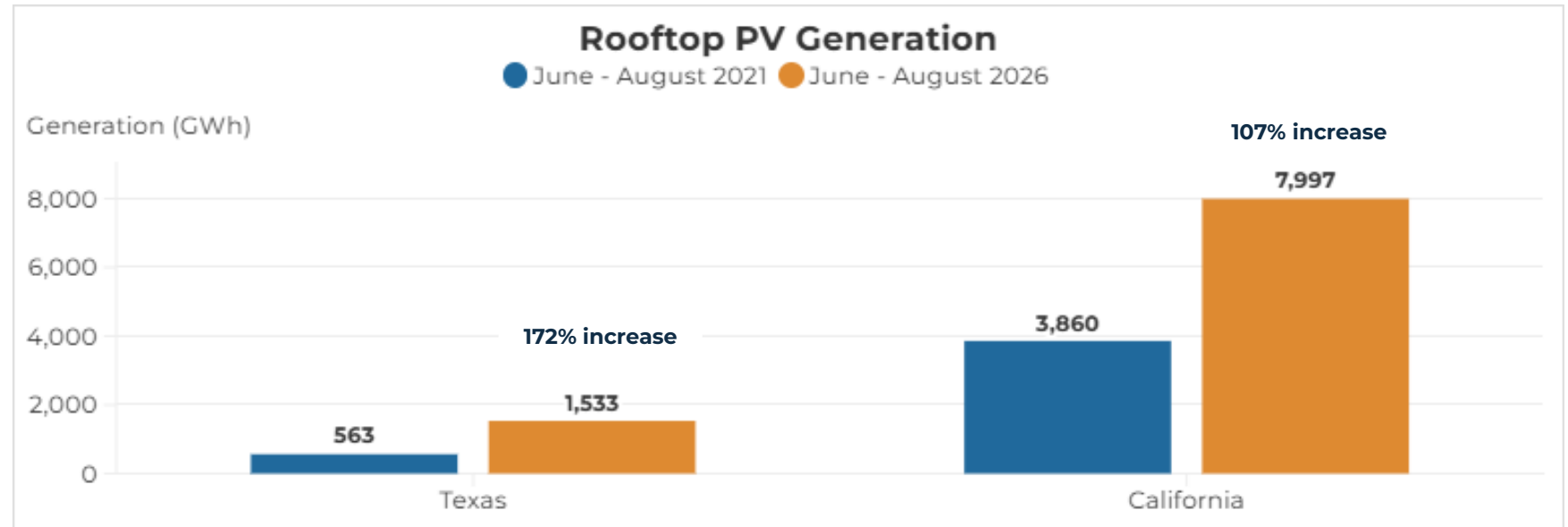


Growth of rooftop solar is also helping to **meet rising demand**

In Texas, rooftop solar generation increased 970 GWh and increased Texas net generation by 0.5%.

In California, rooftop solar generation rose by over 4,000 GWh and increased net generation by 11%.

Rooftop solar and customer-sited battery energy storage reduce stress on the grid and offset the need for additional centralized generation assets.



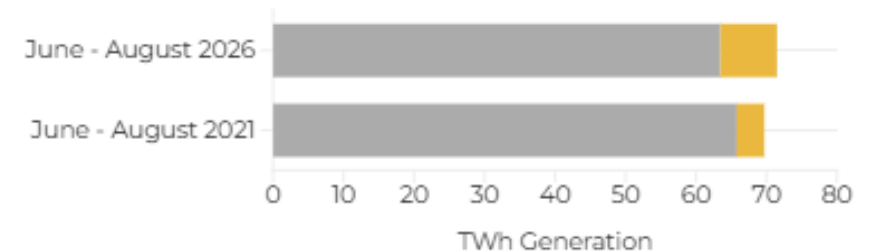
ERCOT Generation

● Wholesale ERCOT Generation ● Rooftop PV Generation



CAISO Generation

● Wholesale CAISO Generation ● Rooftop PV Generation



Methodology, Terminology, Sources and Contacts

Contact:

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Glossary:

Wholesale Price: The market-clearing price for electricity set by auction for a specific time and location.

CAISO: California Independent System Operator

ERCOT: Electricity Reliability Council of Texas

Generation: the production of electricity

Transmission: long-distance, high-voltage grid

Distribution: local, medium-voltage grid

Megawatt-hour (MWh): 1,000 kilowatt-hours (kWh)... typical American households use about 10 MWh of electricity per year.

Methodology:

Generation

- Hourly generation data for the months of June, July and August were averaged by hour separately for 2021 and 2026.
- Behind-the-meter generation was added in order to estimate total load and total solar generation.

Wholesale Prices

- Day ahead locational marginal price (LMP) data for XX individual nodes were averaged and weighted by total generation in the hour, producing an hourly generation-weighted average of electricity supply costs.
- Retail cost breakdowns taken directly from Heatmap data

Sources:

Hourly Generation Data: Energy Information Administration (EIA) Hourly Grid Monitor; GridStatus.io

Locational Marginal Price (LMP): GridStatus.io

Retail Prices: Heatmap