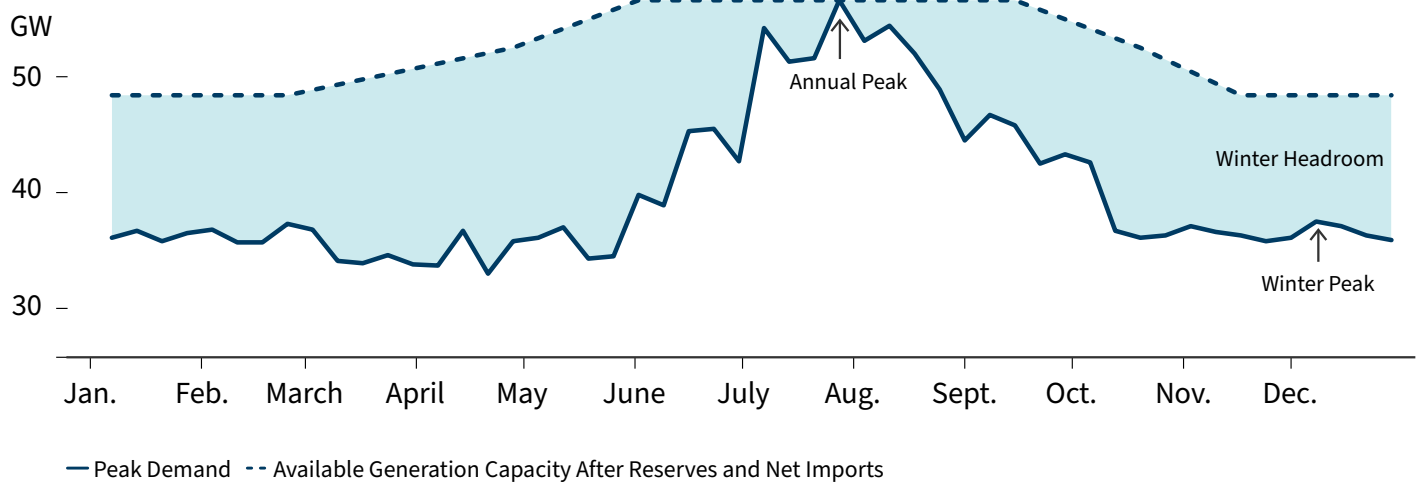


California can put downward pressure on electricity rates by deploying heat pumps to better utilize the grid

Increase grid utilization



California has roughly 11 gigawatts of winter headroom, resulting in underutilized winter grid capacity. This is enough room to add all-electric heat pumps to **8.8 million homes** — nine times the number today — within the current grid. This makes better use of California's existing electric grid.

Reduce electricity rates

5%



Heat pumps can increase electricity sales without expanding generation capacity, putting downward pressure on electricity rates. Upgrading these 8.8 million homes with heat pumps could reduce electricity rates for all residential customers by roughly 5% relative to what they would otherwise be, **saving Californians \$74 annually, or \$1.05 billion per year across all residents.**

Reduce emissions

23%



Upgrading 8.8 million homes to heat pumps **could cut residential carbon emissions by 23%, or 6.4 million tons of CO₂.**

See policy recommendation on the next page.
Read the full report at <https://rmi.org/>

Policy recommendations

- 1.** To help achieve California's goal of 6 million heat pumps installed by 2030, the California Air Resources Board should **establish a statewide zero-emission space heating standard** that requires an increasing share of residential HVAC equipment sales to be heat pumps
- 2.** The California Public Utilities Commission (PUC) and state policymakers should **establish sustained, multi-year funding for all-electric heat pump incentives** through TECH Clean California or a successor program, avoiding funding gaps that disrupt the market and slow heat pump deployment.
- 3.** The PUC should continue **reforming residential electric rates through utility rate-design proceedings** to better reflect seasonal and marginal costs, including the lower cost of serving heat pump off-peak load.
- 4.** State policymakers should **update the state residential energy code to encourage heat pumps when central air conditioners are replaced**, with legislative action where needed to provide additional authority.

