



# Ducks, Data, and Demand: The Opportunity for natural gas to protect Texas critical Infrastructure

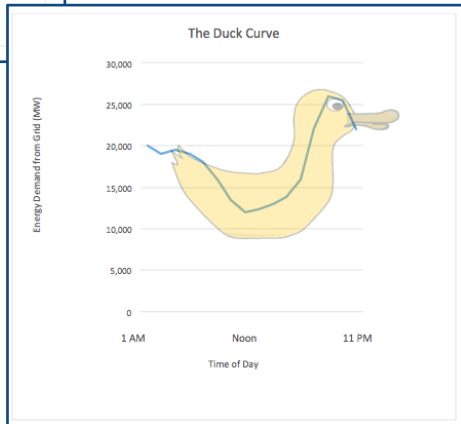
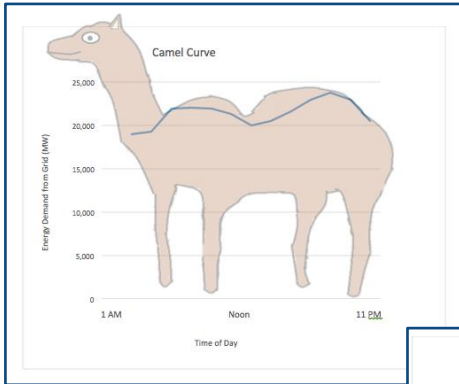
Bell County Water Control & Improvement District No. 1

February 5, 2025



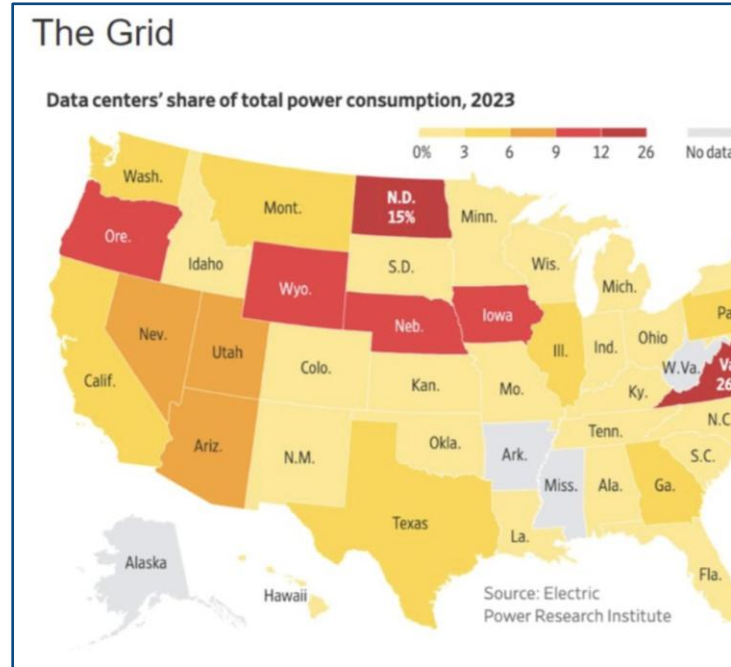
# Houston, we have a problem.

What the grid was designed for....



..what we've ended up with.

Data Centers not your typical load.



Forbes

### AI Power Consumption: Rapidly Becoming Mission-Critical

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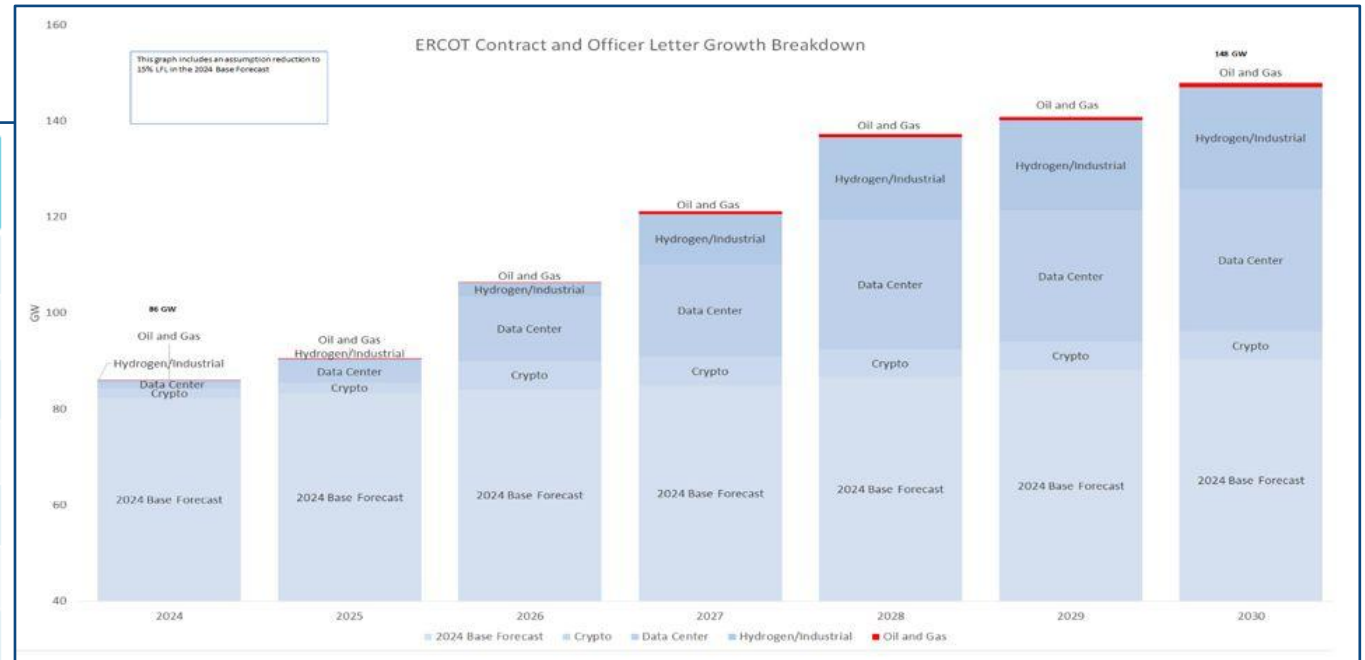
Big Tech is spending tens of billions quarterly on AI accelerators, which has led to an exponential increase in power consumption. Over the next four months, multiple forecasts and data points reveal a sharp rise in electricity demand, and surge in the number of generative AI and surging data centers to scale from tens of thousands to hundreds of accelerators, shifting the energy landscape into a critical problem to solve.



- 120% increase in data center growth in Texas.
- 130% increase in data center growth in MISO.
- 120% increase in data center growth in SPP.

Texas electricity demand could nearly **double** in six years, grid operator predicts.

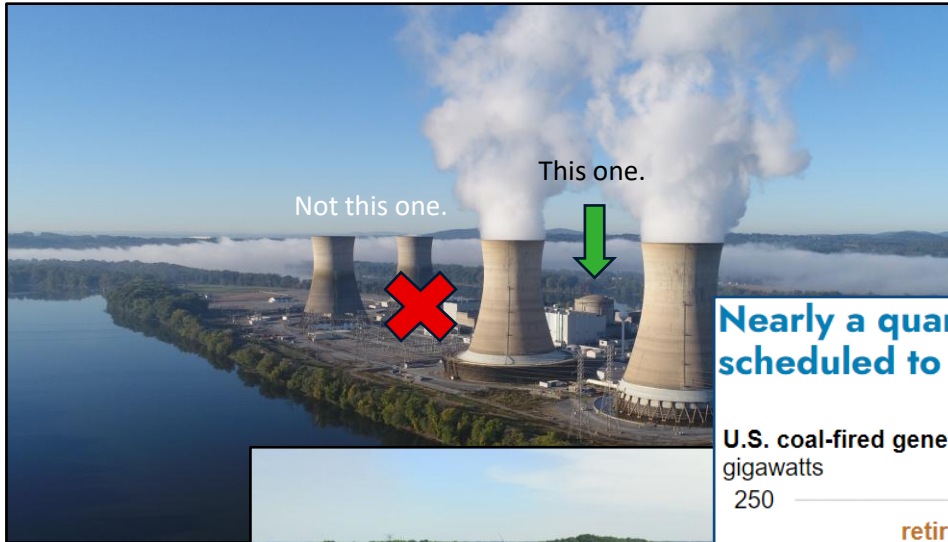
Weather Zone	2026SUM (MW)	2027SUM (MW)	2029SUM (MW)	2030SUM (MW)
Coast	23,736	27,515	28,815	28,867
East	3,327	3,520	3,581	3,722
North	6,471	8,851	9,042	9,078
North Central	34,175	38,116	44,002	46,209
South	8,524	11,807	17,497	18,456
South Central	18,640	19,584	20,567	20,834
West	4,617	4,760	4,927	4,977
Far West	13,732	16,397	18,260	20,321
<b>TOTAL</b>	<b>113,222</b>	<b>130,550</b>	<b>146,692</b>	<b>152,464</b>
<b>+Self-serve +Losses<sup>1</sup> +Reserves</b>	<b>123,528</b>	<b>141,189</b>	<b>157,823</b>	<b>163,728</b>



Renewable capacity in the region is forecasted to rise 120% by the end of the decade. ERCOT peak system demand could be as high as 152 gigawatts in 2030 by ERCOT own estimates, nearly double the current grid’s proven maximum.

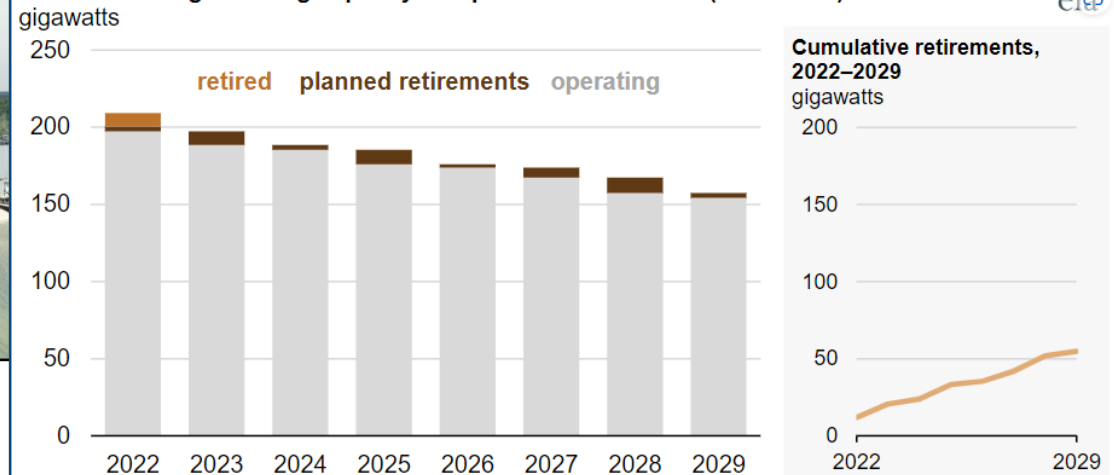
ERCOT’s 2028 summer peak forecast increased from 83.6 GW to 89.1 GW in the past year, a 6.6% increase.

Thirteen U.S. reactors have closed since 2013, due to competition from natural gas fired generation and increases in safety costs. All but three are too far into decommissioning to restart.



### Nearly a quarter of the operating U.S. coal-fired fleet scheduled to retire by 2029

U.S. coal-fired generating capacity and planned retirements (2022–2029)

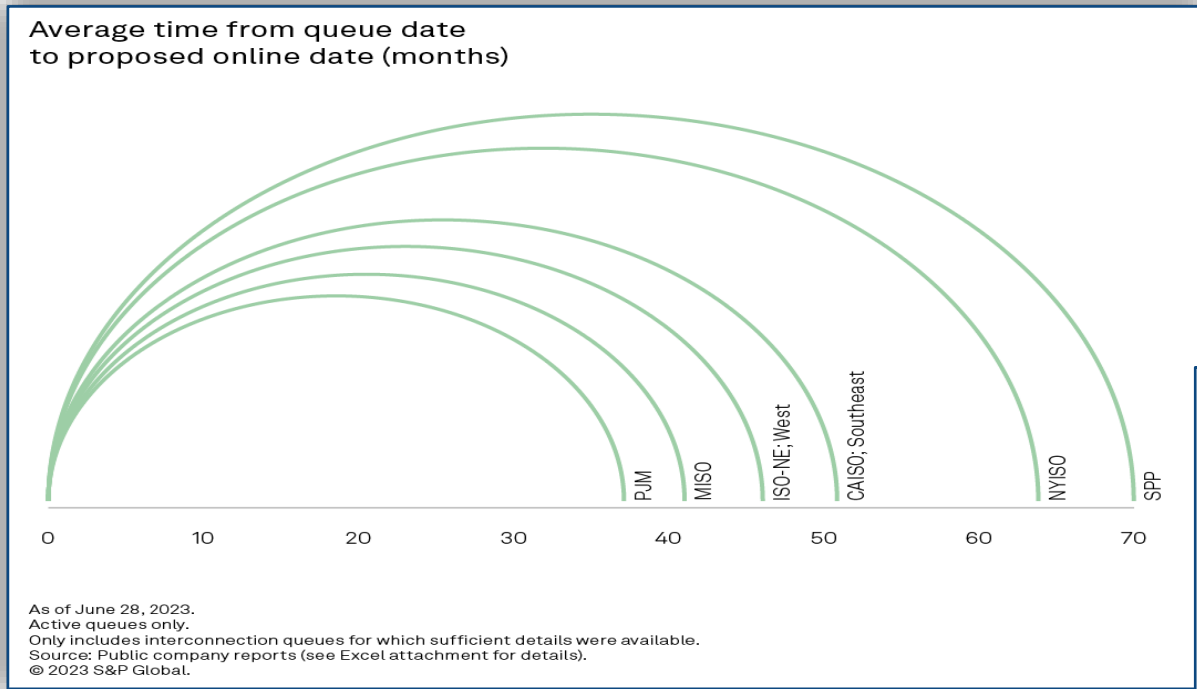


Data source: U.S. Energy Information Administration, *Monthly Electric Generator Inventory*

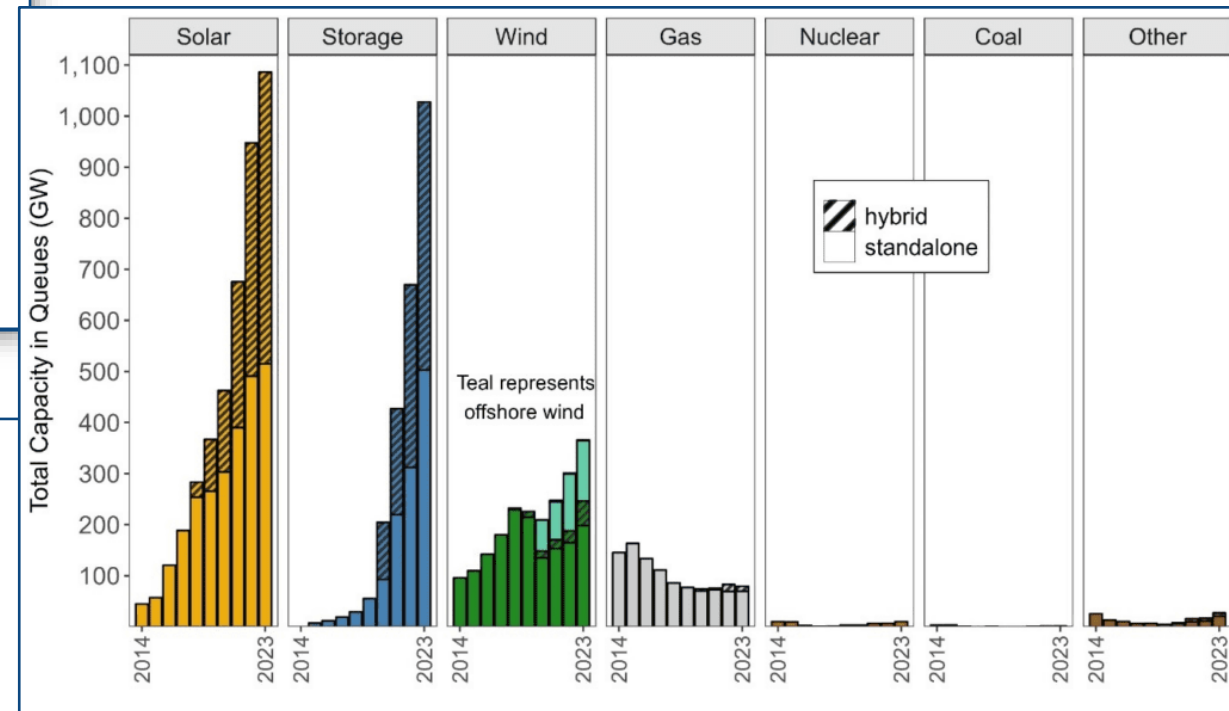
Well then, coal power to the rescue! Surely, we can bring back a few units.



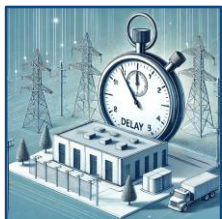
The fact is, all the baseload generation in the world won't fix all of today's problems. U.S. interconnection queues, already jammed, grew 30% in 2023.



See slide One RE: The DUCK



Courtesy S&P Global: <https://www.spglobal.com/marketintelligence/en/news-insights/research/us-interconnection-queues-analysis-2023>



Interconnection queues for large loads and generation estimated time in MONTHS. 6+ years in SPP, 3.6 years in PJM, 2.3 years in Texas, 5+ in NYISO.

# Belton Water Treatment Power Plant 2024

10MW, Grid Synched, 4CP & ERS participation

Full water plant standby solution, online December 2024



16 Generac SG625 units  
Utility connected, remotely dispatched  
RPower Turnkey Design and Build

## ERCOT Programs: ERS, 4CP, Ancillaries, SODG and high energy cost avoidance

### Two Programs for Emergency Response Service (ERS)

**10 Minute ERS:**  
Customer is able to respond and adjust load within 10 minutes of receiving notification.

**30 Minute ERS:**  
Customer is able to respond and adjust load within 30 minutes of receiving notification.

Participants reduce the wholesale cost of electricity as well as receive payments for helping stabilize the grid, remaining on standby when able, and bridging capacity requirements.

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#### DEMAND RESPONSE PROGRAM REQUIREMENTS

- Submit within procurement periods
- Annual testing
- Participate during events
- Measurement and verification
- Have an IDR meter, or an AMS meter

- Capability to reduce load by at least 100 kW (in aggregate or as a single site)
- Have their load evaluated and approved via the ERCOT "ERID Submission Process" prior to participating
- Participate through a qualified QSE

**Four Procurement Periods**

- Fall (Oct - Nov)
- Winter (Dec - March)
- Spring (April - May)
- Summer (June - Sept)

Registration due 45 days prior to each procurement period, with bids due 15 days prior to each period.

**Payments distributed to participants within 60 days of ERCOT settlement with RPower.**

For more details on our services and how to get started, visit [RPOWER1.COM](http://RPOWER1.COM) or contact one of our team members.

### SMART SAVINGS ON ENERGY COSTS

Using strategic energy management to reduce demand charges.

**WHAT ARE 4CP CHARGES?**  
"Four Coincident Peak" (4CP) charges make up a substantial portion of businesses' energy bill. These costs correlate to energy consumption for commercial and industrial electricity customers within the four specific periods of the year that demand for electricity is highest.

**With RPower's services for 24/7 energy monitoring and management, customers gain significant savings by strategically conserving energy during these times.**

**On average, 4CP charges are valued at \$45,000-\$65,000/MW per year.**

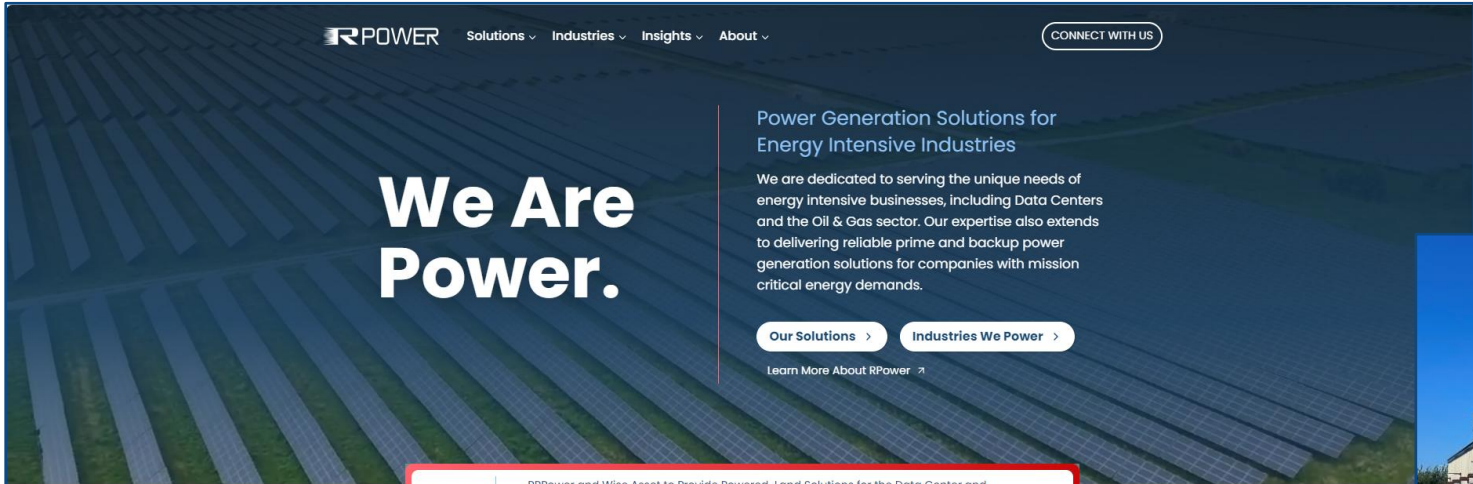
4CP Charges account for approx. 30% of a business' monthly energy costs. **This cost can be greatly reduced with the right partner and tools in place.**

**Peak demand months can vary by state but are often in the summer season.** For example, Texas' highest demand occurs during the 4 months from June-Sept.

**FACTORS THAT AFFECT 4CP SAVINGS**  
The extent of potential savings depends on a few variables that can differ from company to company, including:

- The existing cost incurred by 4CP charges.
- The speed and efficiency with which your organization can reduce its electricity usage during these specific periods of high demand.

For more details on our services and how to get started, visit [RPOWER1.COM](http://RPOWER1.COM) or contact one of our team members.



Flatten the duck, meet demand, fill the utility void.



**Your Trusted Partner in Power Generation Solutions**

Learn More About RPower >

At RPower, we specialize in delivering dependable energy solutions tailored to your needs. With expertise in Prime and Backup Power Generation solutions, we ensure the resilience of your energy infrastructure. As a Portfolio Company of [LSquared Capital](#), our robust capitalization guarantees financial stability in every solution we provide.

Our focus lies in serving energy intensive sectors such as Data Centers, Oil & Gas, and Industrial Manufacturing. Understanding the unique demands of these industries, we deliver customized solutions that ensure reliability and resiliency. Our backup generation services guarantee uninterrupted power supply for businesses with mission critical operations. Our prime power solutions accelerate our customers ability to meet market demands when the utility grid is not available.

Discover how RPower can empower your business with reliable power generation solutions, ensuring your business operations for the future.



Monetize the solution, improve the ROI, protect critical Texas infrastructure.