# TXOGA CHARTBOOK™

## October 20, 2025

**The TXOGA Chartbook is an essential resource for our members and those interested in understanding the data reflecting ongoing developments within the economy and the oil and gas sectors, both internationally and domestically, including specific trends in Texas.**

# Key points – Week of October 20, 2025

- **Consumer sentiment weakened while credit costs eased slightly, signaling cautious household and business outlooks.** The University of Michigan's index fell 6.1% m/m and 23.2% ytd through early October, reflecting weaker household confidence and slower spending. BEA's revised GDP data showed consumer spending up 2.7% y/y in Q2—0.4 percentage points slower than in Q1—while interest rate expectations steadied. High-yield borrowing costs declined 0.3 percentage points to 12.1%, and Fed Funds futures eased to 3.9%, narrowing the low-credit-quality premium to 8.2%. With federal data on employment and the ADS Index delayed by the government shutdown, underlying momentum appears subdued heading into Q4.

- **Oil prices weakened amid softer demand and rising supply expectations.** WTI fell 2.6% week-over-week (w/w) to $57.38/bbl as markets priced in slower global demand and higher OPEC+ output. Futures shifted into contango, signaling weaker near-term sentiment. Net exports rose to 4.2 million barrels per day (mb/d), demand eased to 19.7 mb/d, and inventories increased by 3.5 million barrels, though futures momentum turned positive, hinting at possible price stabilization.

- **Natural gas prices declined amid strong storage builds and a mild weather outlook.** Natural gas prompt-month futures fell 3.2% to $3.01/mmBtu as inventories rose and winter demand expectations softened. Working gas storage increased to 3.72 tcf, near the upper end of the five-year range, while U.S. consumption declined 2.6% y/y to 78.8 bcf/d. Net exports hit a record 16.2 bcf/d, up 23.7% y/y, reflecting continued LNG strength despite domestic softness. Futures remain in contango, suggesting more upside potential than downside risk.

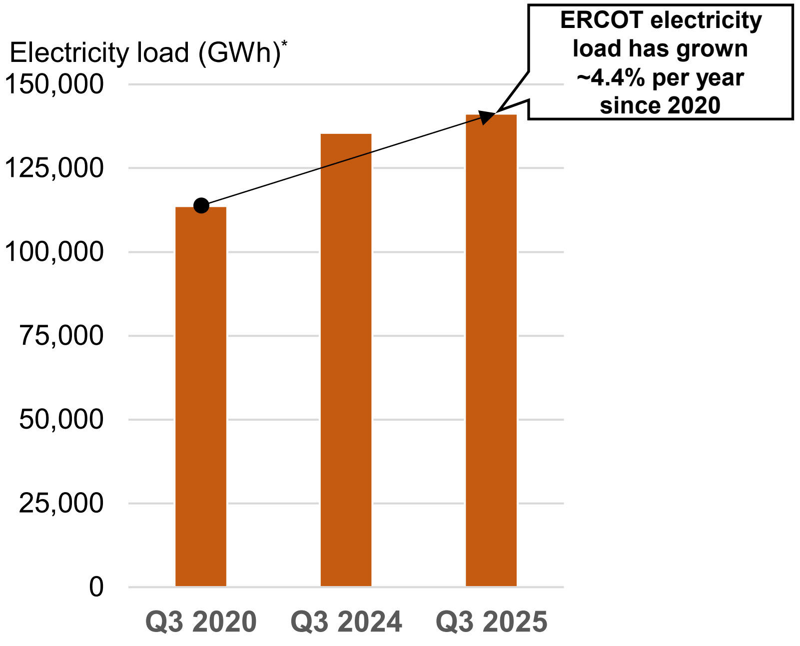
- Chart of the Week: **ERCOT load growth continues to outpace the nation, highlighting ongoing reliability needs.** Electricity demand rose 4.2% year-over-year in Q3, sustaining ~4.4% annual growth since 2020, while forecast accuracy improved slightly with fewer large errors. Despite record renewable additions, dispatchable demand still approached 70 GW, underscoring the continued need for firm, reliable generation to meet Texas's expanding load.

# Chart of the Week: ERCOT load growth continues to outpace the nation, highlighting ongoing reliability needs

- **Growing load—not weather—is the primary driver of reliability requirements and underlines the value of dispatchable generation.**

**ERCOT Electricity Load** *

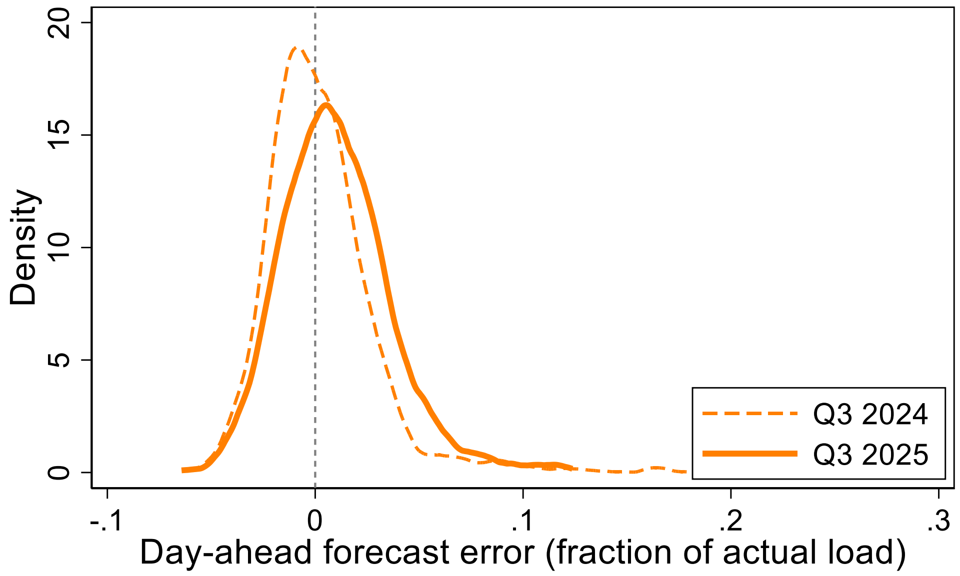
*Q3 load up 4.2% y/y and ~ 4.4% annual growth since 2020*




In Q3 2025, ERCOT's electricity demand averaged ~64 GW, up from ~51 GW in 2020.

**ERCOT Day-Ahead Forecast Error Distributions**

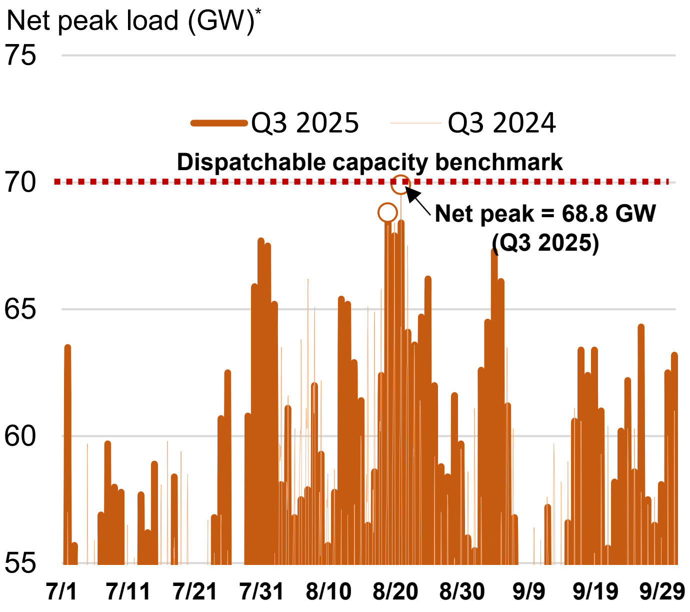
*Forecast accuracy improved slightly in 2025, with mean errors closer to zero and fewer large deviations*




Positive = under-forecast (actual > forecast); negative = over-forecast.

**ERCOT Net Peak Load – Q3 2024 vs. Q3 2025****

*Dispatchable demand still hovers near 70 GW despite record renewable capacity*



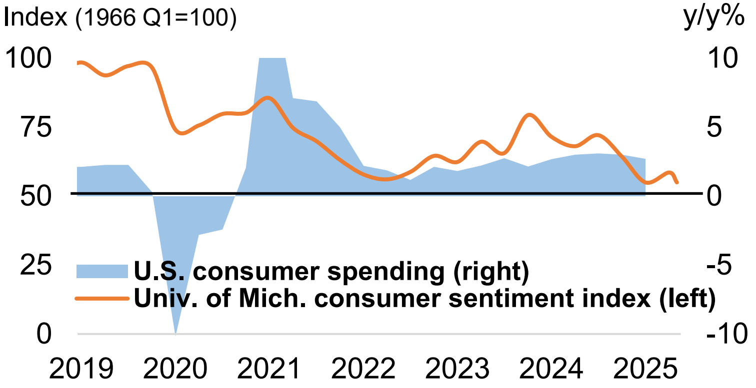

ERCOT's net peaks of 68.8 GW (2025) and 69.9 GW (2024) represent the firm capacity the grid must maintain to ensure reliability

**Rising demand and stable forecast accuracy reflect operational progress but continued dependence on dispatchable power**

*Load = total ERCOT electricity demand (including losses and limited interchange) **Net peak load = demand minus wind and solar output in the peak hour
sources: ERCOT; EIA Form 930; TXOGA analysis

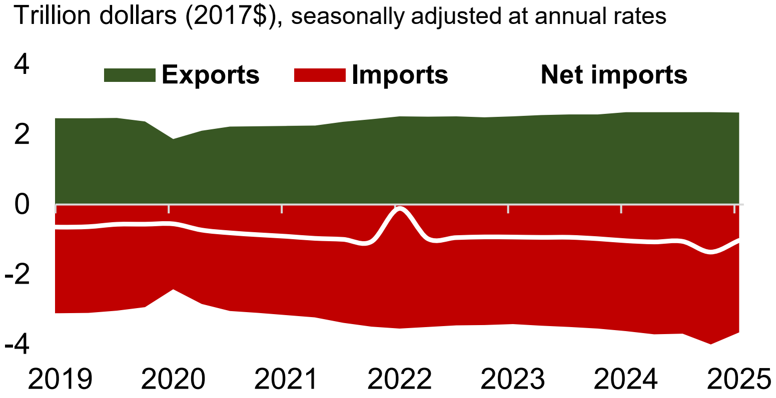
# U.S. economic indicators

### Consumer sentiment and spending trends



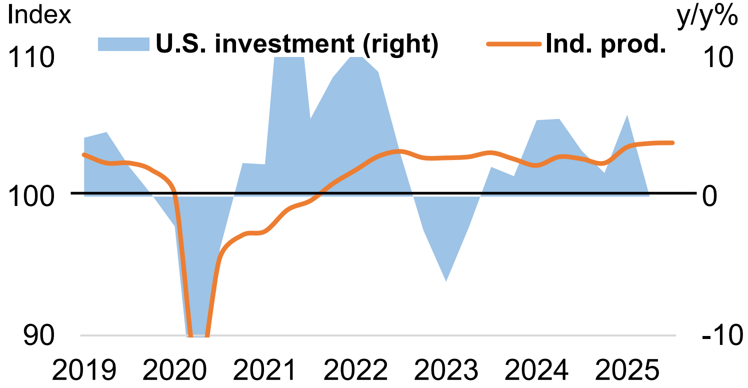

In the University of Michigan's survey, **consumer sentiment—a leading indicator of household spending—fell 6.1% m/m** and 23.2% year-to-date through early October, pointing to weaker household confidence and slower spending. BEA's revised Q2 GDP data showed consumer spending up 2.7% year-over-year, 0.4 percentage points slower than in Q1.

### U.S. trade balance and petroleum exports



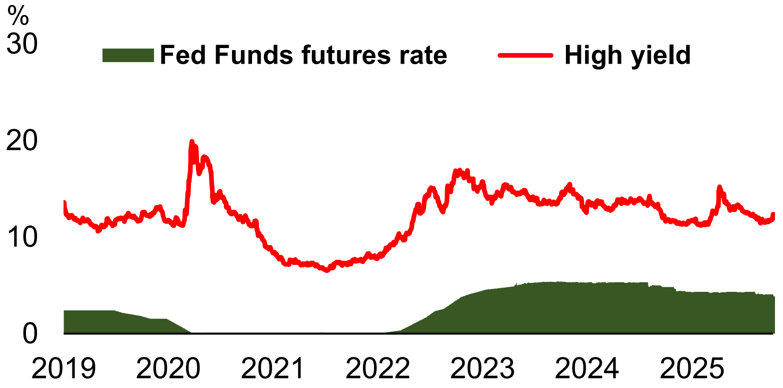

The BEA's initial Q2 2025 GDP report showed the **U.S. trade deficit narrowed to an annualized $1.0 trillion (SAAR)**, down from $1.4 trillion in Q1, as exports exceeded imports. The **petroleum trade surplus rose $9.9 billion to $72.2 billion**, more than double its level a year ago.

### Industrial production and investment



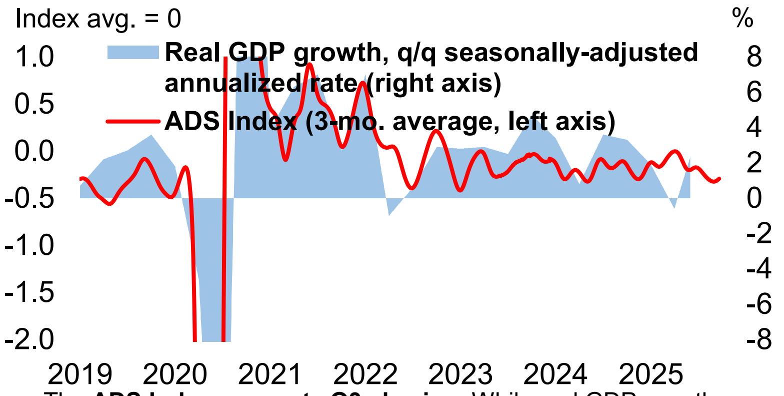

**Macro uncertainties stalled investment in Q2 2025.** Revised BEA data show **economy-wide investment flat year-over-year**, diverging from industrial production, which rose **0.1% m/m in August**. Capacity utilization held at **77.4%**, per the Federal Reserve.

### Interest rates and high-yield borrowing costs



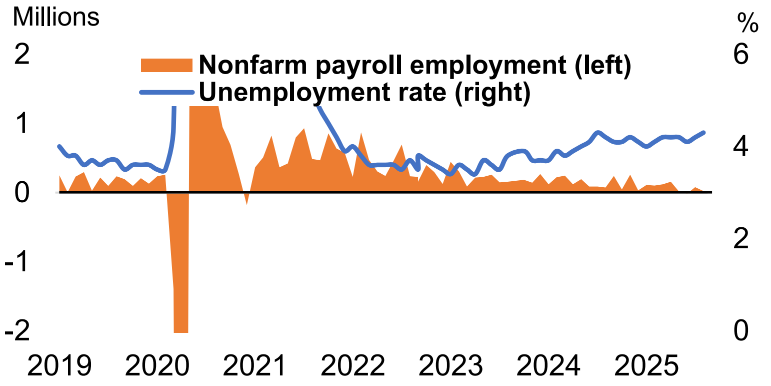

**Interest rate expectations eased, but credit costs for lower-quality issuers narrowed.** As of October 17, high-yield borrowing costs decreased 0.3% w/w to 12.1%, while Fed Funds futures fell to 3.9%, narrowing the low-credit-quality premium to 8.2%.

### ADS Index and real GDP growth




The **ADS Index suggests Q3 slowing**. While real GDP growth rebounded in Q2, the **Philadelphia Fed's ADS Index—an early signal of economic momentum—continued to indicate weak growth in Q3 2025**.

### Employment and unemployment trends



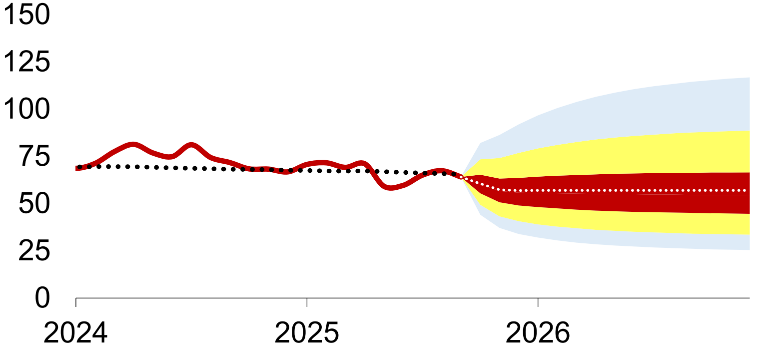

**Labor market conditions weakened further.** Nonfarm payrolls increased by **22,000 in August**, while the **unemployment rate rose 0.1 points to 4.3%**, according to the Bureau of Labor Statistics.

sources: FRED; Univ. of Michigan; BEA; CME Group; Federal Res. Board; Philadelphia Fed. Res.; Bureau of Labor Statistics

# U.S. oil market indicators

## WTI futures mean reversion analysis

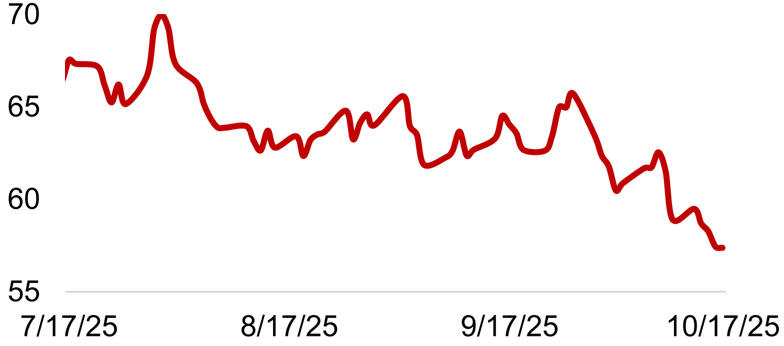
Dollars per barrel (2025$)




**Near-term WTI futures remain below their historical mean-reversion target,** with forward prices shifting into contango (spot prices below futures) through 2026—signaling expectations of weaker near-term market conditions.

## WTI crude prompt month futures prices

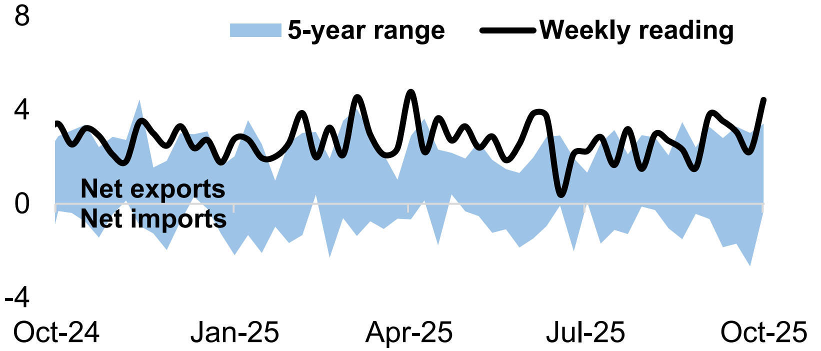
Dollars per barrel




**WTI crude prices fell 2.6% w/w** to $57.38/bbl as of October 17, as markets priced in expectations of slower growth in China and higher OPEC+ supply.

## U.S. petroleum net exports (imports)

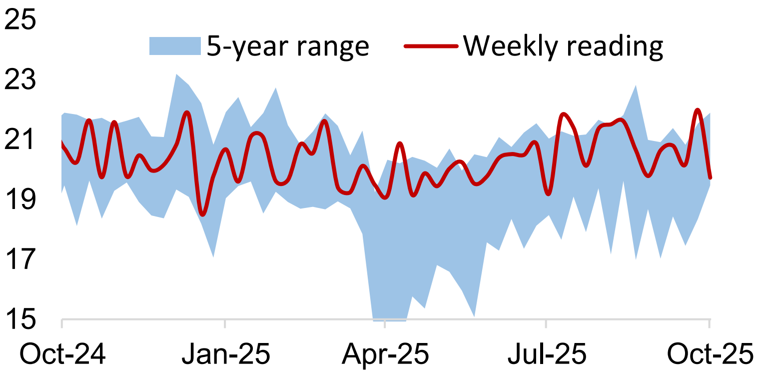
Million barrels per day, mb/d




**U.S. petroleum net exports rose to 4.2 mb/d** for the week ended October 10, up 2.0 mb/d from the prior week.

## U.S. petroleum demand

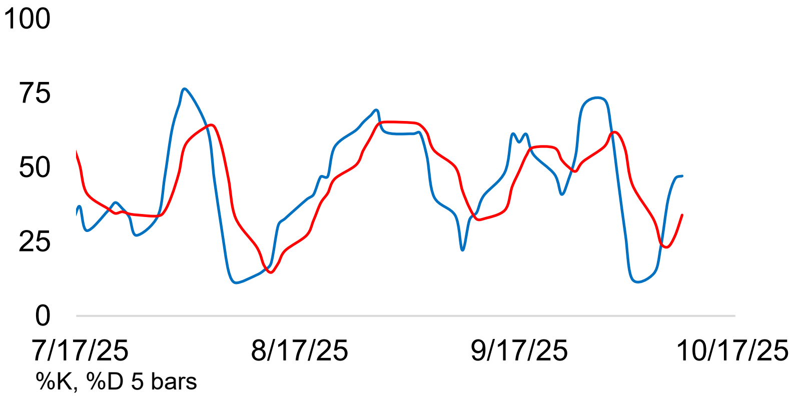
Million barrels per day (mb/d)




**U.S. petroleum demand decreased.** As of October 10, deliveries averaged 19.7 mb/d, down 2.2 mb/d from the prior week.

## WTI futures momentum indicator

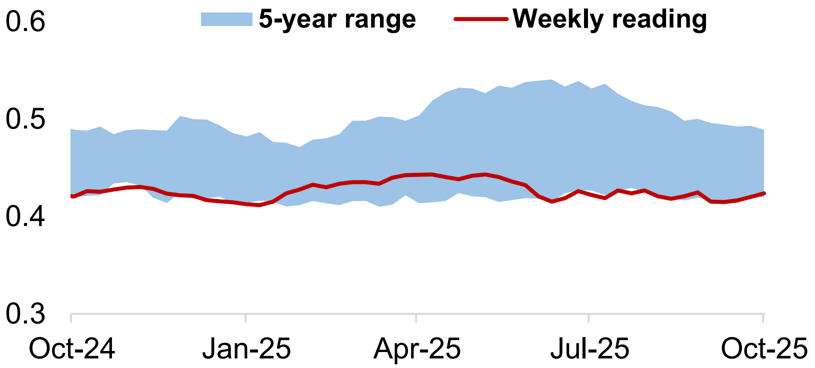
Index level




**Price momentum turned positive** for the week ended October 17.

## U.S. crude oil inventories (excluding the SPR)

Billion barrels



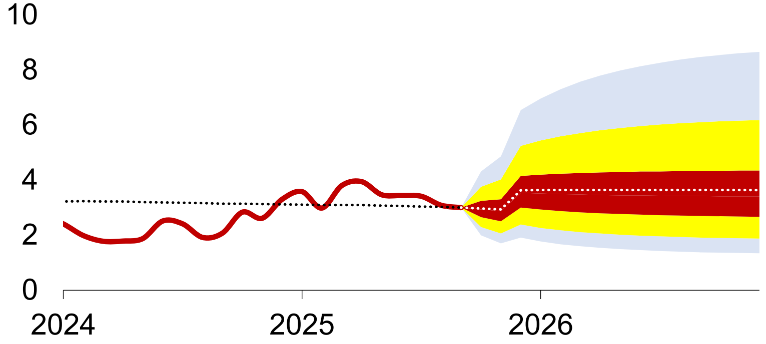

**U.S. crude oil inventories increased** by 3.5 million barrels for the week ended October 10. Stocks remain near the bottom of the five-year range.

sources: U.S. Energy Information Administration; CME Group; Bureau of Labor Statistics; TXOGA analysis

# U.S. natural gas market indicators

### Natural gas futures mean reversion analysis

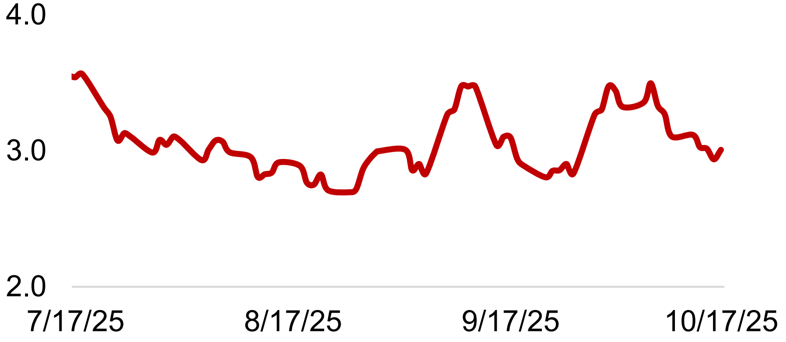
Dollars per mmBtu (2025$)




**Near-term futures remain aligned with their historical mean-reversion target**, with forward prices in contango (spot prices below futures). Confidence intervals imply greater potential for upside movement than downside risk.

### Natural gas prompt month futures prices

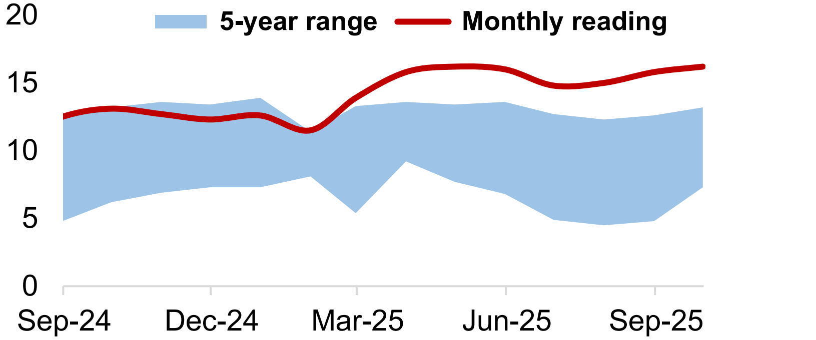
Dollars per million Btu




**Natural gas prices fell 3.2% w/w** to $3.01/mmBtu as of October 17, driven by strong storage builds and weaker winter weather expectations.

### U.S. natural gas net exports

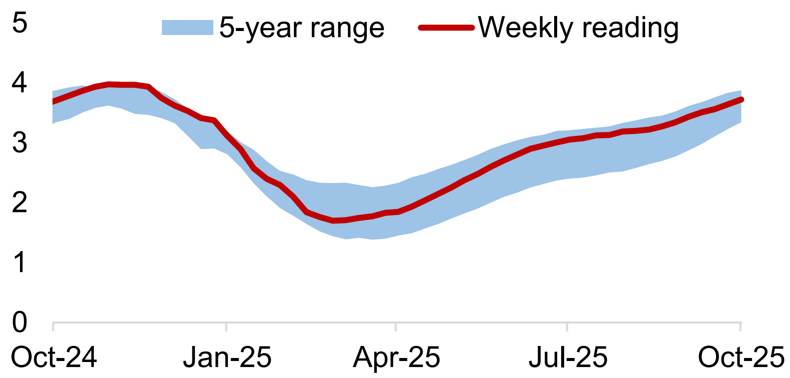
Billion cubic feet per day, bcf/d




According to EIA estimates, **U.S. natural gas net exports rose 23.7% y/y** to a record 16.2 bcf/d in September, supported by continued LNG strength.

### Working natural gas storage

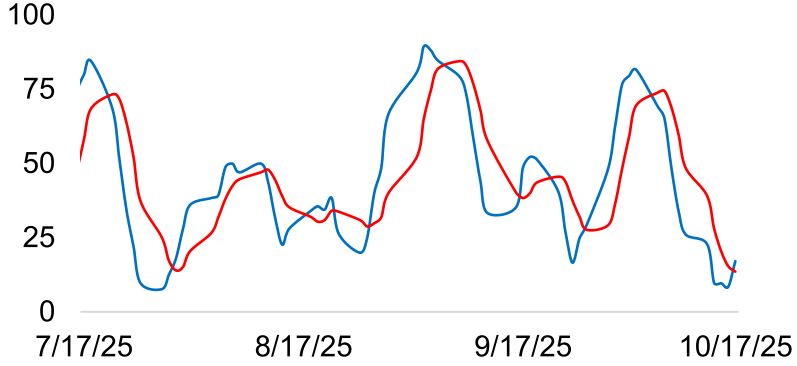
Trillion cubic feet (tcf)




**Working natural gas storage increased 2.2% w/w** to 3.72 tcf as of October 10, remaining within the upper third of the five-year range.

### Natural gas futures momentum indicator

Index level

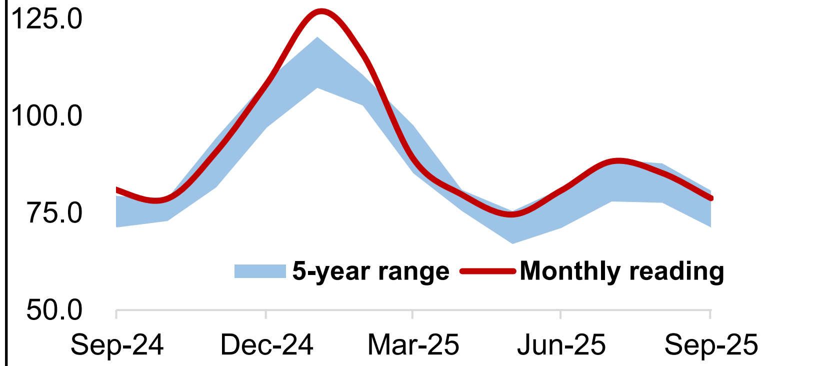



%K, %D 5 bars

Price momentum declined during the week but turned positive by October 17, signaling a potential shift toward short-term recovery after recent weakness.

### U.S. natural gas consumption

Billion cubic feet per day, bcf/d

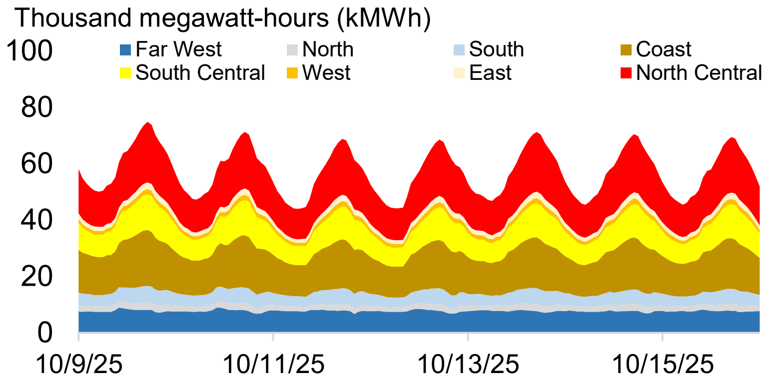



**Consumption declined 2.6% y/y** to 78.8 bcf/d in September, led by lower residential and power sector demand, according to EIA estimates.

sources: U.S. Energy Information Administration; CME Group; Bureau of Labor Statistics; TXOGA analysis

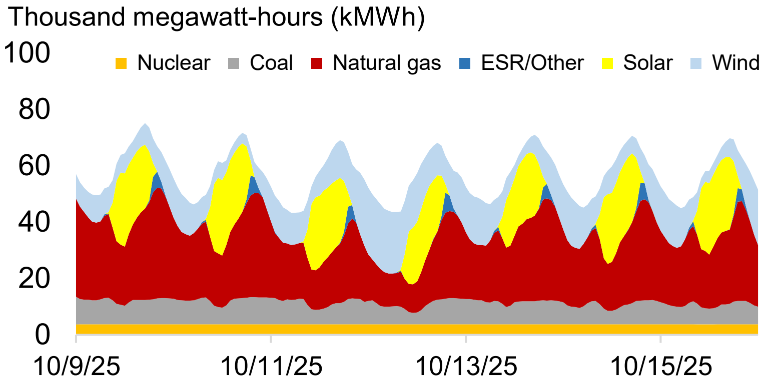
# Texas electricity analysis

### ERCOT electricity load by region



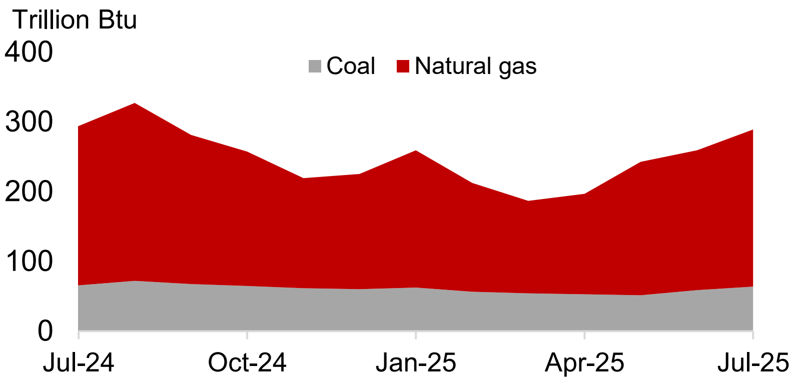

For Oct. 9-15, ERCOT's average hourly electricity load was 57.4 kMWh, down 5.3% w/w, while the maximum hourly load of 74.9 kMWh fell by 2.0% w/w. Variability was the highest in the South Central and North Central regions.

### ERCOT hourly electricity generation by source



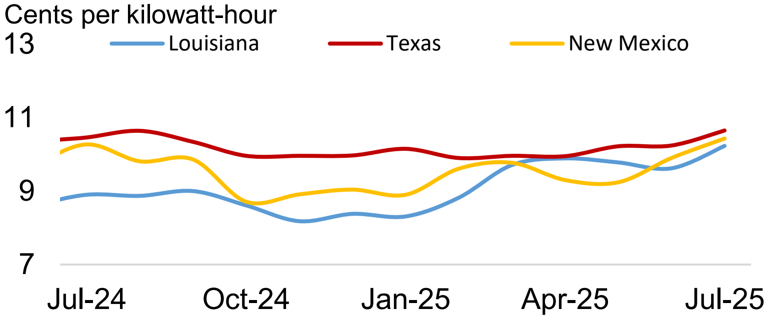

**Thermal and other dispatchable resources supplied as much as 84.7% of ERCOT's electricity.** From Oct. 9-15, hourly generation ranged between 43–75 kMWh, with a standard deviation of 8.5 kMWh. On the night of Oct. 10, dispatchable sources met 84.7% of load—including 62.2% from natural gas.

### Texas electricity plant receipts of natural gas and coal



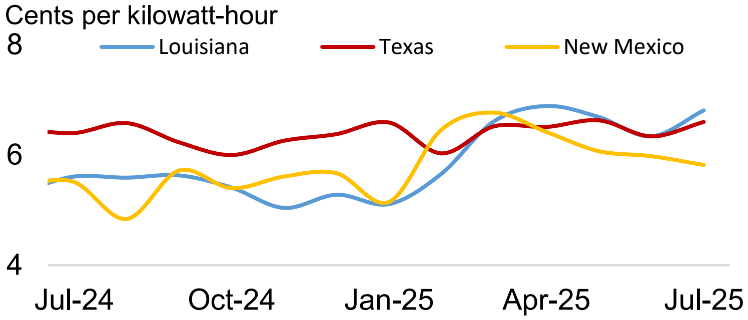

**Natural gas receipts rose seasonally** but remained below year-ago levels in July. Texas power plant receipts of natural gas increased 12.5% m/m but were 1.4% lower than in July 2024. Coal receipts also rose 8.2% m/m yet were down 2.7% y/y.

### Electricity prices – average across all end-use sectors



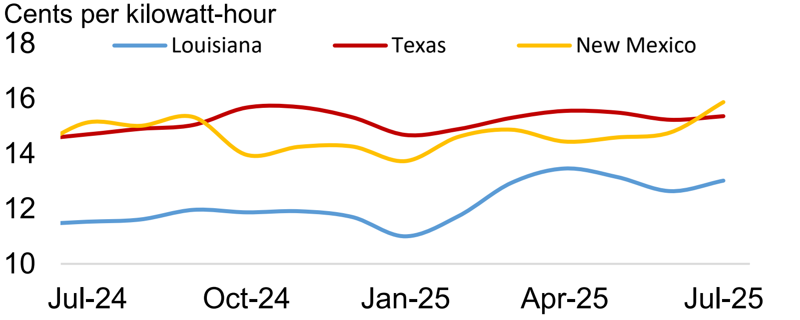

**Texas electricity prices rose in July 2025.** The state average increased 4.0% m/m and 1.8% y/y to 10.65 cents per kWh, compared with 10.23 in Louisiana and 10.43 in New Mexico.

### Industrial electricity prices




**Texas' industrial electricity prices rose** 4.1% m/m and 3.1% y/y to 6.6 cents per kWh in July. Prices in neighboring states also climbed from last year: Louisiana's surged 21.4% y/y to 6.81 cents per kWh—now above the Texas average—while New Mexico's rose 5.6% y/y but remained 11.8% below Texas levels.

### Residential electricity prices



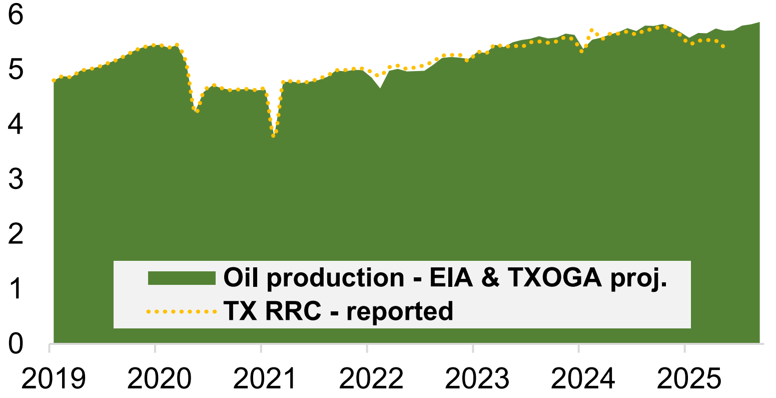

**Texas' residential electricity prices rose** 0.9% m/m and 4.5% y/y in July to 15.36 cents per kWh. Rates in neighboring states also climbed—up 12.9% y/y in Louisiana and 4.9% y/y in New Mexico—though Louisiana's remain more than 15% below Texas levels.

sources: ERCOT; EIA; TXOGA analysis

# Texas oil and natural gas production

## Texas crude oil production, Jan. 2019 – Sep. 2025

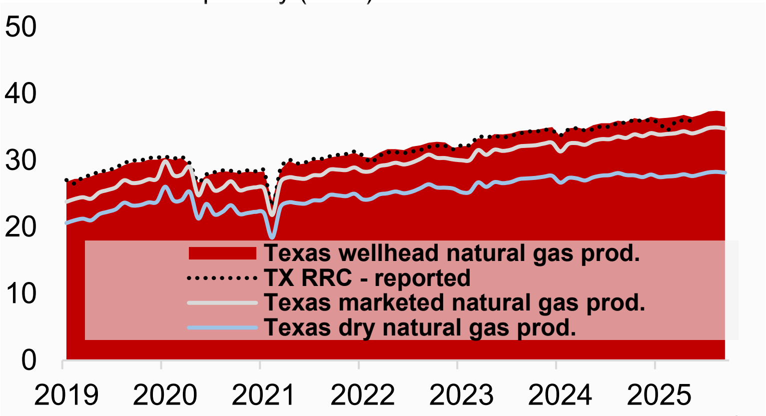
Million barrels per day (mb/d)




**Record-high production.** Texas crude oil output set a new all-time high at 5.8 mb/d in July 2025 (EIA), with TXOGA estimates showing production rising further to 5.9 mb/d in September.

## Texas natural gas production, Jan. 2019 – Sep. 2025

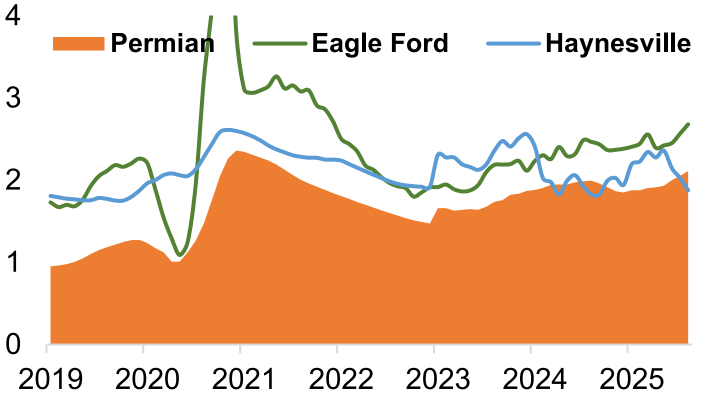
Billion cubic feet per day (bcf/d)




**Natural gas production records.** Texas produced record-highs of 37.4 bcf/d of natural gas gross withdrawals and 34.8 bcf/d of marketed production in July, per EIA. TXOGA estimates that Texas' marketed production reached 34.9 bcf/d in Aug. and returned to 34.8 bcf/d in Sep.

## Texas rig productivity by basin – new monthly prod. per rig

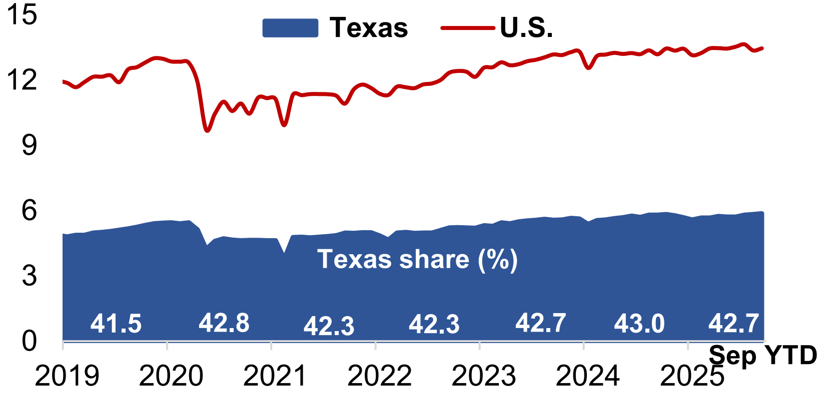
Thousand barrels per day oil-equivalent, kb/doe




**Rig productivity rose in August.** EIA estimates of rig productivity for August 2025 rose by 5.8% y/y in the Permian Basin, 8.6% y/y in the Eagle Ford, and 2.7% y/y in the Haynesville.

## U.S. and Texas crude oil production, Jan. 2019 – Sep. 2025

Million barrels per day (mb/d)

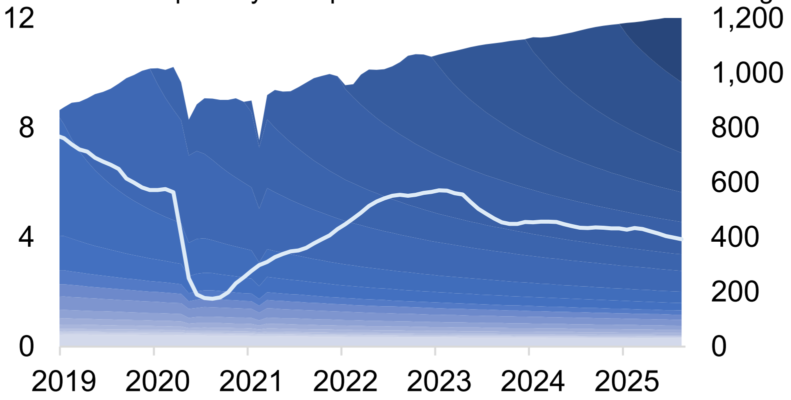



In the first three quarters of 2025, Texas accounted for **42.7%** of total U.S. crude oil production.

## Texas shale basin wellhead oil & natural gas production

Million barrels per day oil-equivalent

Rigs

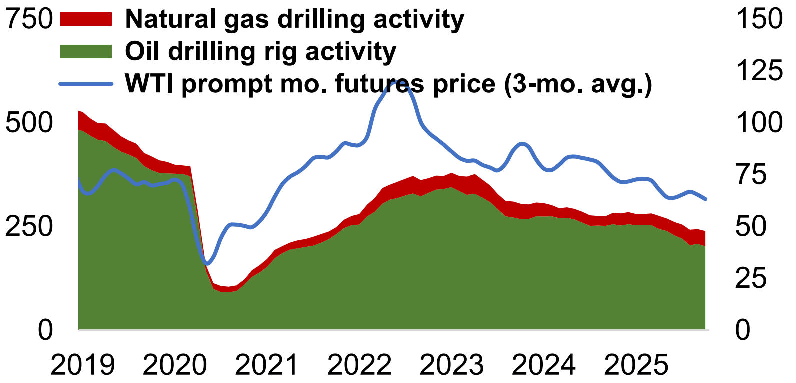



**EIA estimates show oil and natural gas production growth across Texas** shale basins in August 2025, including the Permian (+3.4% y/y), Eagle Ford (+1.0% y/y), and Haynesville (+10.3% y/y).

## Texas drilling activity and WTI crude oil futures prices

Rigs

Dollars per barrel (2025$)



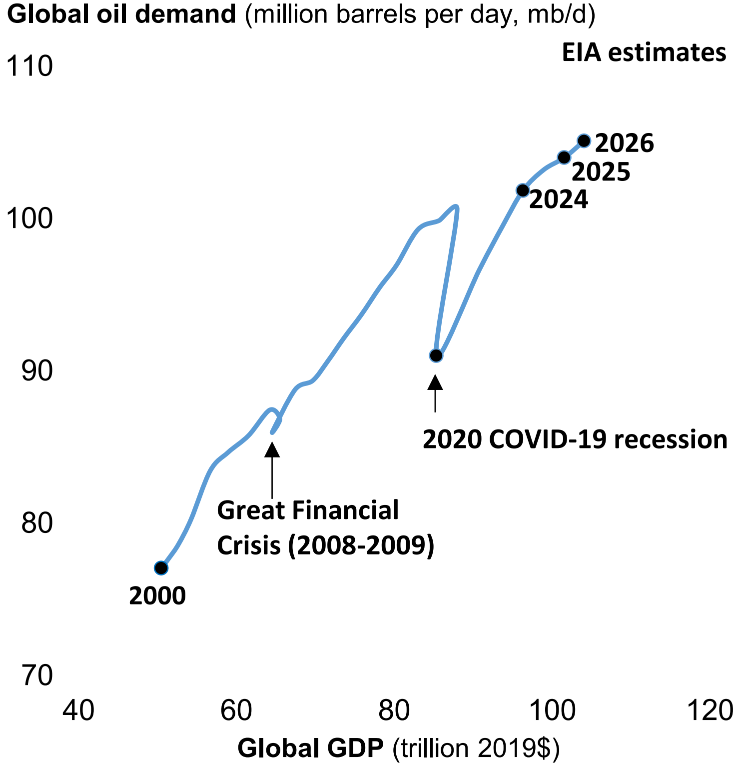

**As of October 17, Texas' total rigs decreased**, according to Baker Hughes, with 198 oil-directed rigs (down 2 rigs w/w) and 38 natural gas-directed rigs (up 1 rig w/w).

sources: U.S. Energy Information Administration; Texas Railroad Commission; Baker Hughes; CME Group; TXOGA analysis

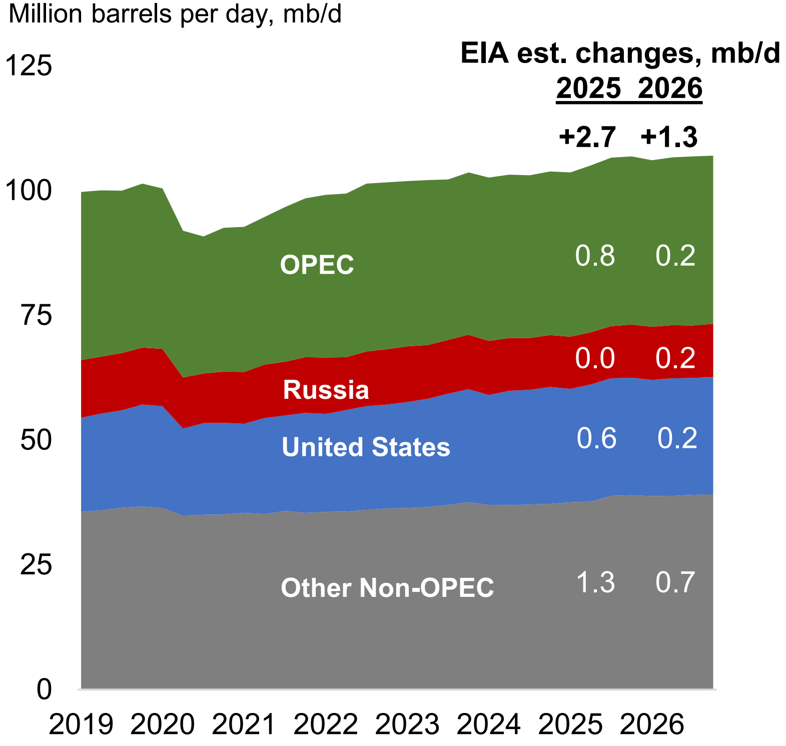
# Global oil demand outlook upgraded

- In its October update, EIA raised its 2025 global oil demand estimates, still expecting a third consecutive record, but at higher levels: 104.0 mb/d in 2025 (+0.2 mb/d vs. prior report) and 105.1 mb/d in 2026 (unchanged), effectively advancing demand.
- EIA raised its 2025 global supply growth by 0.3 mb/d and its 2026 outlook by 0.2 mb/d, with higher supply from all sources
- Brent crude oil prices are now projected to average $69 per barrel in 2025 and $52 in 2026—compared with about $66 currently

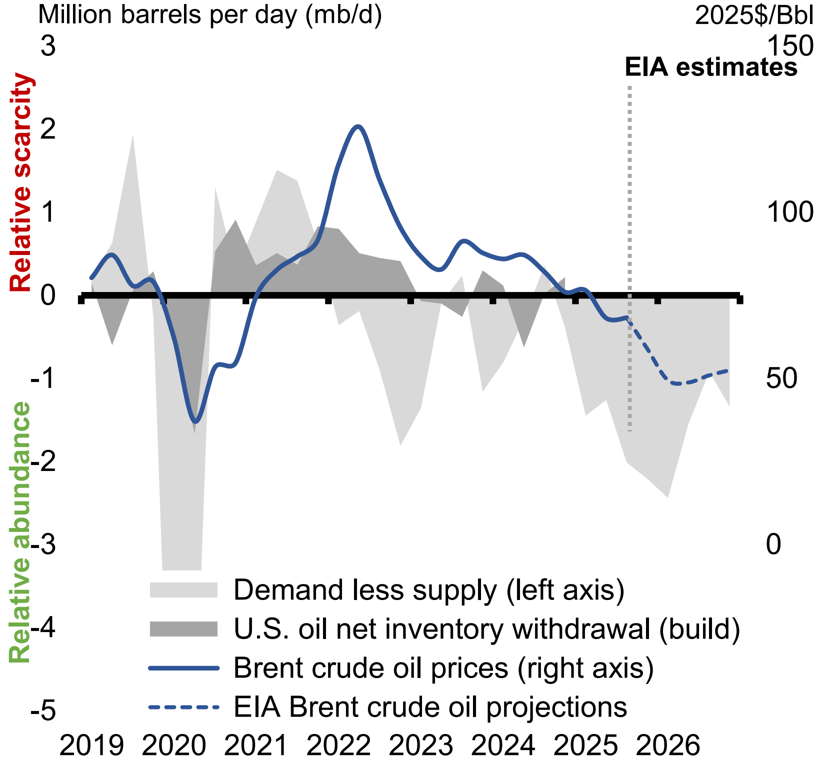
**Global oil demand vs. GDP**




**Oil production by country/region**




**Global demand/supply & Brent prices**

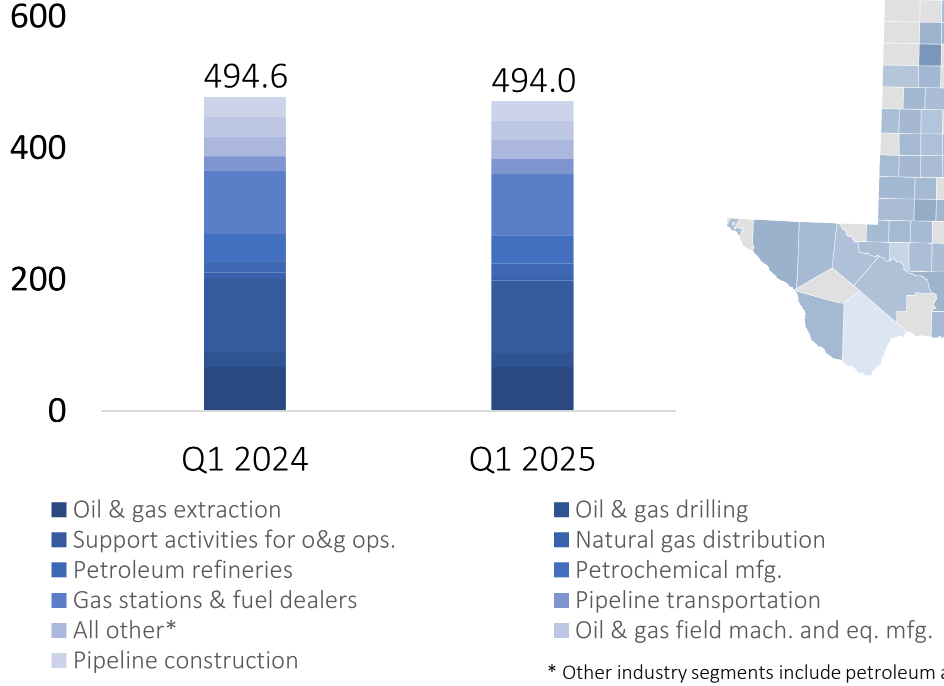


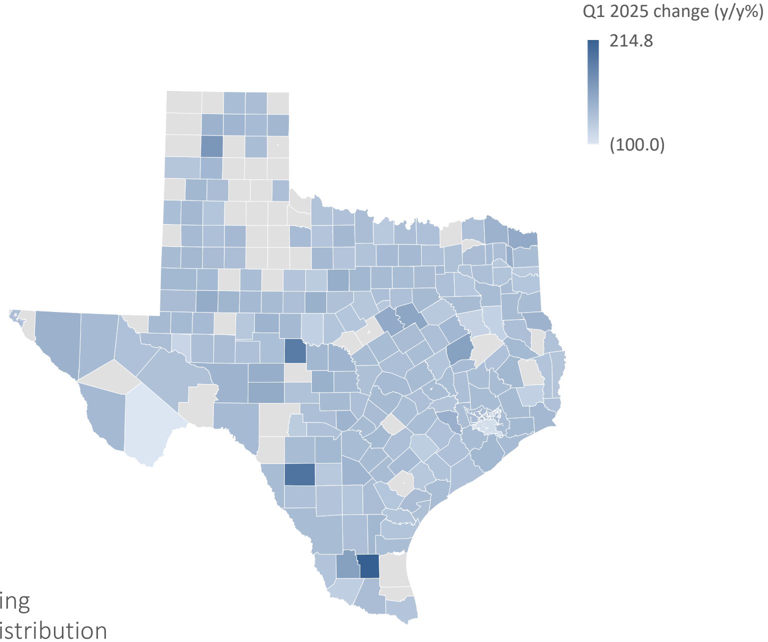

sources: U.S. Energy Information Administration (Oct. 2025); TXOGA analysis

# Texas oil & gas jobs dipped, wages reached record high in Q1 2025

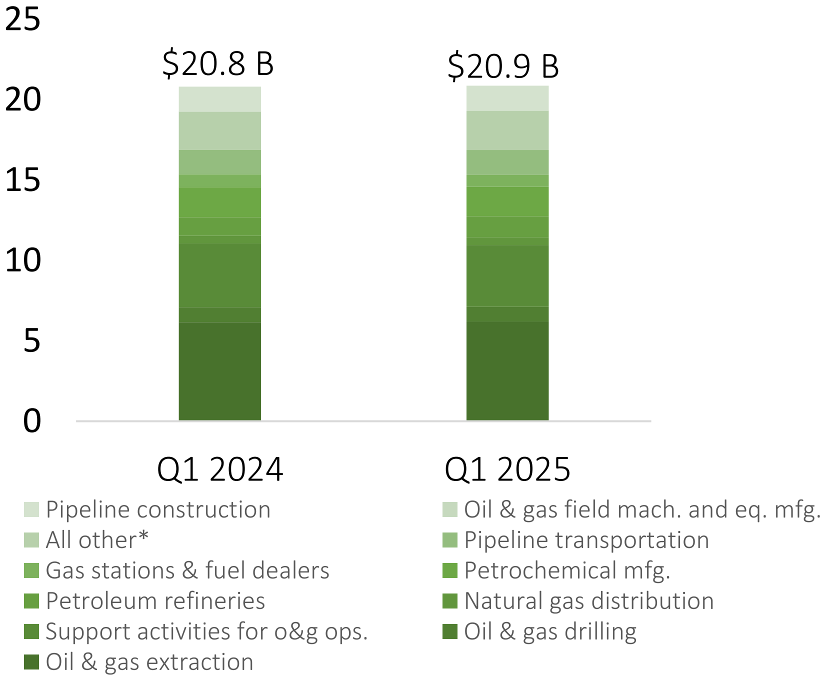
- Texas oil and natural gas industry employment fell 0.1% year-over-year (y/y) in Q1 2025 to 493,958 jobs, while industry wages edged up 0.2% y/y to $20.9 billion—the highest on record.
- Although overall employment held steady, several industry segments posted notable changes. Petroleum refinery employment rose 10.8% y/y to 51,732 jobs; petrochemical manufacturing expanded 4.0% y/y to 18,279 jobs; nitrogenous fertilizer manufacturing jumped 15.6% y/y to 578 jobs; and industrial sand mining fell 26.4% y/y to 3,789 jobs, according to data from the U.S. Census Bureau and the Texas Workforce Commission.

## Texas oil and natural gas industry direct employment fell by +0.1% y/y in Q1 2025




## Texas oil and natural gas industry direct wages rose by +0.2% y/y in Q1 2025




* Other industry segments include petroleum and pet. product wholesalers, lubricant mfg., asphalt mfg., industrial sand mining, nitrogenous fertilizer mfg., basic organic chem. mfg., plastics and resin mfg.

sources: U.S. Census Bureau; Texas Workforce Commission

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