

Energy Tidbits

No Changes in Oil Demand Growth Forecasts for 2024: IEA Still at +1.0 mmb/d YoY, OPEC Still at +2.2 mmb/d YoY

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Short-Term Energy Outlook

Overview

U.S. energy market indicators	2023	2024	2025
Brent crude oil spot price (dollars per barrel)	\$82	\$86	\$88
Retail gasoline price (dollars per gallon)	\$3.50	\$3.40	\$3.50
U.S. crude oil production (million barrels per day)	12.9	13.2	13.8
Natural gas price at Henry Hub (dollars per million British thermal units)	\$2.50	\$2.50	\$3.30
U.S. liquefied natural gas gross exports (billion cubic feet per day)	12	12	14
Shares of U.S. electricity generation			
Natural gas	42%	41%	40%
Coal	17%	17%	16%
Renewables	21%	23%	25%
Nuclear	19%	19%	19%
U.S. GDP (percentage change)	2.5%	2.4%	1.8%
U.S. CO₂ emissions (billion metric tons)	4.8	4.8	4.8

Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, July 2024

- Hurricane Beryl. We completed modeling and analysis for this report on July 3, and it does not
 include any potential effects from Hurricane Beryl. The hurricane hit the Texas Gulf Coast, a major
 hub for the U.S. energy industry, on July 8. EIA will continue to monitor the effects of the hurricane
 on critical energy infrastructure and will communicate important information in subsequent reports.
- **Crude oil prices.** Brent crude oil prices in our forecast average \$89 per barrel (b) in the second half of 2024 (2H24), up from \$84/b in 1H24. Higher prices in the second half of the year result from our forecast of persistent withdrawals from global oil inventories. We estimate global oil inventories decreased by 0.5 million barrels per day (b/d) in 1H24 and will fall by 0.7 million b/d in 2H24. Inventory withdrawals stem in part from OPEC+ production cuts, which the group announced in early June would remain at current levels until at least the end of September.
- Gasoline expenditures. A combination of falling gasoline prices, increased vehicle efficiency, and rising incomes mean U.S. households will spend about 2.3% of disposable income on gasoline in 2024 and 2.2% in 2025, less than average for the 2015–2023 period. Our regular grade retail gasoline price forecast of around \$3.50 per gallon (gal) for 2025 is slightly less than the 2023 annual average and \$0.50/gal less than the 2022 annual average.
- Natural gas prices. We forecast the Henry Hub natural gas spot price will average almost \$2.90 per million British thermal units (MMBtu) in 2H24, up from \$2.10/MMBtu in 1H24. Natural gas prices fell in early 2024 because of mild winter weather that reduced demand for natural gas for space

heating. However, low prices reduced natural gas-directed drilling and led producers to curtail some production, and we expect dry production of U.S. natural gas in 2H24 to remain near 104 billion cubic feet per day (Bcf/d) compared with a record of more than 106 Bcf/d in December 2023.

- Natural gas inventories. At the end of June, there was 19% more natural gas in U.S. inventories than the five-year average (2019–2023). We expect less natural gas injected into storage than the five-year average this summer season because of relatively flat production in 2H24 and a seasonal increase in demand from the electric power sector. We forecast inventories will end the injection season in October with 6% more natural gas in storage than the five-year average.
- **Electricity generation.** The U.S. electric power sector generated 5% more electricity in 1H24 than 1H23 because of a hotter-than-normal start to summer and increasing power demand from the commercial sector. We expect a 2% increase in U.S. generation in 2H24 compared with 2H23, with solar power, the fastest growing U.S. source, generating 36 billion kilowatthours (BkWh) more electricity in 2H24 than in 2H23 (an increase of 42%).
- **Electricity generation**. After reviewing the responsiveness of fossil fuel generation to natural gas prices, we now expect more power generation from coal and less from natural gas than we did in our previous forecast, especially during the winter. In the June *Short-Term Energy Outlook*, we had forecast 18 BkWh less coal generation in 2H24 than in 2H23, we now forecast 10 BkWh more. We had also forecast that 2H24 natural gas generation would be relatively similar to 2H23. We now forecast 21 BkWh less.

Notable forecast changes

Current forecast: July 9, 2024; previous forecast: June 11, 2024	2024	2025
Electric power sector consumption from coal (billion kilowatthours)	688	674
Previous forecast	655	609
Percentage change	5.1%	10.8%
Electric power sector coal inventories (million short tons)	115	85
Previous forecast	131	138
Percentage change	-11.9%	-38.5%

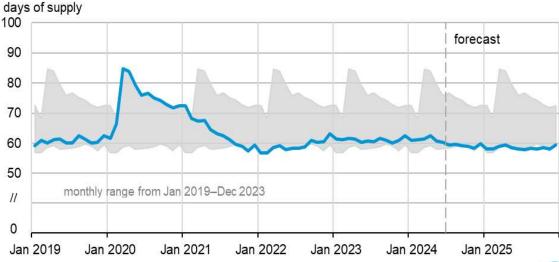
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook

Global Oil Markets

Global oil prices and inventories

The Brent crude oil spot price averaged \$82 per barrel (b) in June, unchanged from May. Prices fell to \$75/b on June 4 following the OPEC+ meeting on June 2, when the group announced that 2.2 million barrels per day (b/d) of voluntary cuts would gradually be unwound beginning in the fourth quarter of 2024 (4Q24). Prices fell following this announcement as market participants assessed that unwinding production cuts could cause a significant increase in global oil inventories. The Brent crude oil spot price has since reached \$88/b as of July 3, as market participants have reassessed the announcement based on current global inventory levels and the indication by OPEC+ that production cuts remain subject to market conditions.

Organization for Economic Cooperation and Development (OECD) commercial inventories of crude oil and other liquids



Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, July 2024

We expect oil prices will increase from an average of \$82/b in June to \$89/b for the remainder of 2024 and \$91/b in 1Q25. Total oil inventories in the OECD remain near the lower bound of their recent five-year range (2019–2023). We expect that OPEC+ will produce less crude oil than the group's announced targets through the rest of the forecast period, which will reduce global oil inventories through mid-2025 and keep OECD inventories near the bottom of the range. Global oil inventories decreased by an estimated 0.6 million b/d in 2Q24, and we expect they will decrease by 0.8 million b/d on average from 3Q24 through 1Q25.

We anticipate that the market will gradually return to moderate inventory builds in 2025 after the expiration of voluntary OPEC+ supply cuts in 4Q24 and after forecast supply growth from countries outside of OPEC+ begins to offset growth in global oil demand. Beginning in 3Q25 we estimate that global oil inventories will increase at an average of 0.3 million b/d and will increase by 0.4 million b/d in 4Q25. We forecast the Brent price will average \$88/b in 2025, as growing inventories reduce oil prices in the second half of next year.

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Uncertainty remains around heightened tensions in the Middle East, and an escalation in Houthi attacks on shipping vessels around the Red Sea. These attacks have largely cut off the shipping channel for many oil shipments. Although these attacks have yet to directly reduce oil supply, the potential for further escalation and the lack of any potential resolution around the Red Sea attacks has added higher shipping costs and an ongoing risk premium to oil prices in the near term.

Global oil production and consumption

Although OPEC+ cuts are limiting world oil production growth, we estimate that growth outside of OPEC+ remains strong. We expect that global production of petroleum and other liquid fuels will increase by 0.6 million b/d in 2024. We expect OPEC+ liquid fuels production to decrease by 1.3 million b/d in 2024, while production outside of OPEC+ increases by 1.9 million b/d, led by growth in the United States, Canada, Guyana, and Brazil. We expect that global production of liquid fuels will increase by 2.2 million b/d in 2025, as the OPEC+ voluntary production cuts unwind throughout the year. OPEC+ production increases by 0.7 million b/d combined with 1.4 million b/d of production growth from countries outside of OPEC+ in 2025.

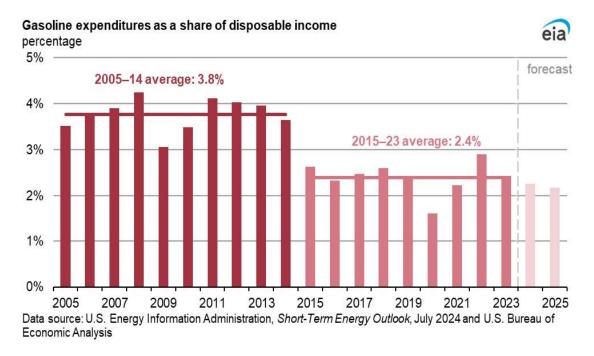
We forecast that global consumption of liquid fuels will increase by 1.1 million b/d in 2024 and 1.8 million b/d in 2025. Most of the expected demand growth is from non-OECD countries. In 2024, consumption of liquid fuels by non-OECD countries increases by 1.2 million b/d, offsetting a small decline in OECD, particularly in Europe and Japan. In 2025, non-OECD consumption rises by 1.4 million b/d, mostly in China, where we expect consumption will increase by 0.6 million b/d, and India, with a 0.7 million b/d increase. We expect OECD consumption rises by 0.4 million b/d, led by consumption growth in the United States.

U.S. Petroleum Products

Gasoline expenditures

We forecast aggregate U.S. expenditures on gasoline will decrease as a share of disposable income this year and next. A combination of falling real gasoline prices and increasing vehicle efficiency resulting from higher fuel economy in internal combustion engines as well as shifts to hybrid and battery electric vehicles means we expect aggregate gasoline expenditures will be less in 2024 and 2025 compared with 2023. Additionally, rising incomes mean U.S. aggregate expenditures on gasoline will represent about 2.3% of disposable income in 2024 and 2.2% in 2025, which would be slightly less than the 2015–23 average and approaching two percentage points less than the 2005–14 average.

Personal disposable income represents individual or household income after federal, state, and local taxes. We use the same methodology in this report that we outlined in a May 2022 Short-Term Energy Outlook supplement. We calculated our gasoline expenditures forecast by multiplying our all grades retail gasoline price times our forecast for annual gasoline consumption. Our forecast for disposable personal income comes from the S&P Global Insights U.S. macroeconomic model. Because gasoline prices, consumption, and personal disposable income are highly uncertain and subject to many different economic forces, our current forecast could be significantly different if any of these variables change this year or next.



We forecast regular-grade gasoline prices will average around \$3.50 per gallon in 2025 and gasoline consumption will average 8.9 million b/d. Continued increases in vehicle efficiency mean U.S. drivers will drive more miles in 2025 than before, but we expect 1% less U.S. gasoline consumption than in 2023 and 5% less than the record set in 2018. Growth in real disposable income also reduces the percentage devoted to gasoline purchases. Real disposable income grew at a compound annual growth rate of more than 2% per year from 2005 to 2023, making it nearly 50% higher in 2023 than it was in 2005.

Following crude oil and gasoline price increases in the early 2000s, gasoline expenditures averaged 3.8% of U.S. disposable income between 2005 and 2014. After crude oil prices declined almost 50% in 2015, expenditures averaged 2.4% of disposable income through 2023. Although we forecast crude oil prices will increase in 2024 and 2025, retail gasoline prices will remain lower than in 2023 because of declining refiner margins. In addition, we forecast the U.S. vehicle fleet will get 3% more miles per gallon in 2025 than in 2023, reducing gasoline consumption and expenditures. We expect 5% more real disposable income in the United States in 2025, outpacing growth in gasoline expenditures.

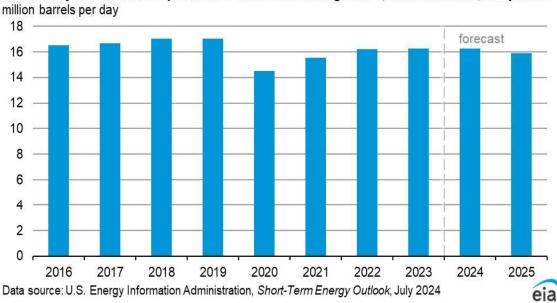
Expenditures will differ across the United States depending on region, household income, and driving habits. Households with older, less efficient vehicles or in regions of the country with higher gasoline prices will spend more than those households that drive less or are in regions with lower gasoline prices.

U.S. transportation fuel production

Following a planned refinery closure next year, net production by U.S. refineries and blenders of the three largest transportation fuels (motor gasoline, distillate fuel oil, and jet fuel) will decline by 2%, or 0.4 million b/d between 2023 and 2025. Initially planned to close by the end of 2023, LyondellBasell announced last year its 264,000-b/d Houston refinery would remain open until early 2025. This refinery is in the Texas Gulf Coast region, where these transportation fuels made up an average of 86% of refinery output in 2023, the most on record for the region. In addition to the refinery closure, we

forecast 2025 U.S. refinery utilization will average about one percentage point less than in 2023 because of lower refining margins, meaning other refiners will not offset the lost production by increasing refinery throughput. In other years when U.S. refiners closed capacity, utilization increased and mostly offset the loss of petroleum production.

Despite the decline in fuel output, we do not expect significant changes to U.S. petroleum product availability or crack spreads because new refineries opening in other countries will add to world petroleum supply. Although not up to full utilization, Nigeria's 650,000-b/d Dangote refinery will likely be able to offset most petroleum product losses in the Atlantic Basin market following two planned refinery closures in the United States and the United Kingdom in 2025. The planned closure of the Grangemouth refinery in the United Kingdom in early 2025 may reduce transportation fuel supply by around 0.1 million b/d in the region.

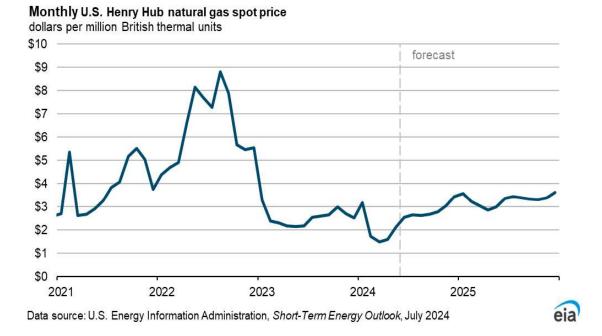


U.S. refinery and blender net production of finished motor gasoline, distillate fuel oil, and jet fuel

Natural Gas

Natural gas prices

We expect that the Henry Hub natural gas spot price will average almost \$2.90 per million British thermal units (MMBtu) in the second half of this year, up from an average of about \$2.10/MMBtu in the first half of 2024 (1H24). Our July price forecast is similar to our June price forecast, which we increased from the prior month because of our revised forecast drop in U.S. natural gas production in 2024.



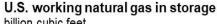
We expect U.S. dry natural gas production to decrease slightly in 2024 because of less natural gasdirected drilling and production curtailments in 1H24 due to low natural gas prices. Less production this year has helped keep natural gas injections into storage so far this injection season (April–October) below the five-year average (2019–2023).

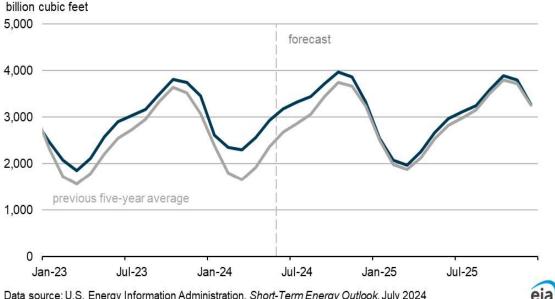
U.S. natural gas storage inventories were 19% above the five-year average (2019–2023) at the end of June after ending the withdrawal season on March 31 at 39% above the five-year average. We expect natural gas storage injections to continue to fall below the five-year average this injection season because of relatively flat production through 2H24 and a summer increase in demand from the electric power sector. As a result, the surplus of natural gas in storage will be further reduced, and we expect that inventories will end the summer injection season on October 31 at almost 3,970 billion cubic feet, still 6% above the five-year average and 4% more than inventories at the end of the 2023 injection season.

As U.S. storage inventories draw down close to the five-year average by the end of injection season and with new demand from liquefied natural gas export projects coming on line in late 2024 and mid-2025, we expect natural gas prices to rise to an average of \$3.30/MMBtu in 2025. Because of rising prices, we expect dry natural gas production to increase by 2% next year.

The Mountain Valley Pipeline in the Appalachia region, which provides additional takeaway capacity for natural gas production in the Appalachian Basin, started operations in June. We do not expect the full 2 billion cubic feet per day of capacity to be utilized until next year because of constraints downstream of the interconnection with the Transcontinental Gas Pipeline in Pittsylvania County, Virginia.

If production or storage injections are lower than our forecast and/or natural gas consumption in the electric power sector is greater than we expect, prices could be higher than in our forecast.





Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, July 2024

Electricity, Coal, and Renewables

Electricity generation

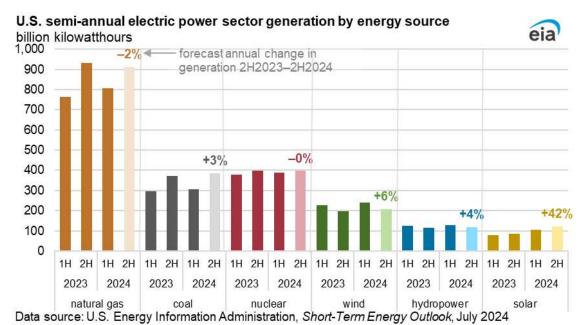
During the first half of 2024 (1H24), the U.S. electric power sector generated 5% more electricity than during the same period in 2023 in response to a hotter-than-normal start to summer and increasing power demand from the commercial sector. We expect 2% more U.S. generation in 2H24 than in 2H23 as growth in commercial demand slows because of our expectation that space cooling use in that sector will be similar to 2H23.

Solar power is the fastest growing source of electricity in the United States. We expect 36 billion kilowatthour (BkWh) more electricity to be generated in the United States from solar in 2H24 than in 2H23, an increase of 42%. We forecast 6% more U.S. wind generation during 2H24--12 BkWh more than in 2H23—driven by more wind turbines coming on line, and we forecast 4% (5 BkWh) more hydropower, as a result of slightly improved water supply conditions this year.

Although natural gas continues to be the largest source of U.S. electricity generation, we expect 21 BkWh, or 2% less natural gas generation in 2H24 than in 2H23. This forecast decline is due to more generation from renewable sources as well as our expectation of 7% higher Henry Hub natural gas prices in 2H24 than in 2H23.

We expect higher natural gas prices will drive a 10 BkWh (3%) increase in coal generation during 2H24.

After reviewing the responsiveness of fossil fuel generation to natural gas prices, we have revised our power generation forecast to include more generation from coal and less from natural gas than previously expected, especially in the winter months. In the June Short-Term Energy Outlook, we had forecast 18 BkWh less 2H24 coal generation than 2H23, and we had forecast that 2H24 natural gas generation would be relatively similar to 2H23.



Note: 1H refers to the first half of the year, and 2H refers to the second half.

Wholesale power prices

As a result of rising U.S. natural gas prices, we expect that wholesale power prices during 2H24 will exceed average prices during 1H24 in most regions. Although we expect temperatures for the rest of the summer to be close to the 10-year average, temporary heat waves in the remaining summer months could cause spikes in wholesale power prices.

The lowest wholesale prices in 1H24 were in the Southwest and in California, where prices averaged around \$20 per megawatthour (MWh). Forecast wholesale prices in those two regions rise into the low \$30/MWh range in 2H24.

The Northwest experienced high power prices in 1H24, averaging \$66/MWh, reflecting high regional natural gas prices, less hydroelectric generation, and increased power demand from Canada. We forecast average wholesale prices in the Northwest will fall to average less than \$50/MWh in 2H24. Forecast wholesale prices in 2H24 at other major hubs are higher than 1H24 prices by less than \$10/MWh.



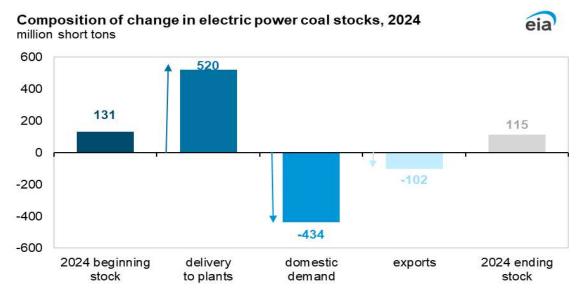
Semi-annual average wholesale electricity prices at selected price hubs, 2024

Data source: U.S. Energy Information Administration, *Short-Term Energy Outlook*, July 2024 Note: H1 refers to the first half of the year, and H2 refers to the second half.

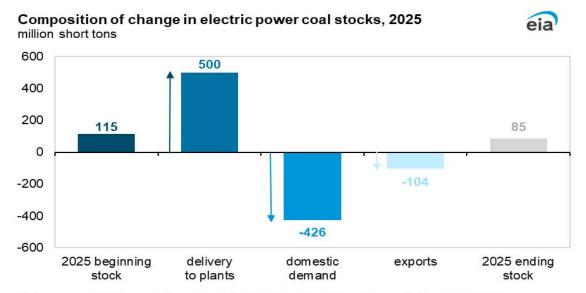
Coal markets

Hot weather in June helped increase coal consumption by the U.S. electric power sector by 37% from May. We expect coal-fired electric power consumption to increase an additional 19% in July and 3% in August, reaching 45 million short tons (MMst) in August, as utilities ramp up generation in response to summer air-conditioning needs. Based on our updated forecast of electricity demand that increases coal-fired generation, we expect the U.S. electric power sector will consume about 395 MMst of coal in 2024, with consumption falling by 2% in 2025. In response, we expect coal production to increase month over month by 10% in June, 6% in July, and 13% in August. In August, we expect 69% more U.S. coal consumption compared with May, while production will increase 33%.

With growth in U.S. coal consumption outstripping production this summer, combined with exports ramping back up in the summer months after the Francis Scott Key bridge collapse in late March, we expect electric power coal stocks to drop to 113 MMst in August from 137 MMst in May. We expect stocks to start rising again in the fall as overall electricity generation falls, sharply reducing coal consumption. We forecast stocks will end the year at 115 MMst, 12% less than at the end of 2023. We expect stocks to end 2025 at 85 MMst because of less coal production and rising coal exports.



Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, July 2024 Note: "Begining stock" = December 2023. "Delivery to plants" = production + imports + waste coal + primary stock draw + secondary stock draw. There is a small discrepancy term not shown here.



Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, July 2024
Note: "Begining stock" = December 2024. "Delivery to plants" = production + imports + waste coal +
primary stock draw + secondary stock draw. There is a small discrepancy term not shown here.

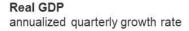
Economy, Weather, and CO₂

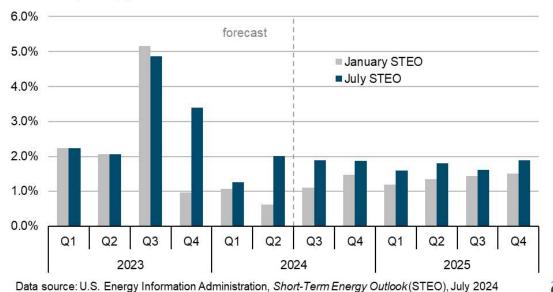
U.S. macroeconomics

Our forecast for July 2024 assumes real GDP will grow by 2.4% in 2024. The U.S. economy has grown faster than we assumed it would at the start of the year. Both consumer spending and private fixed investment contributed to the strength in the first half of 2024.

Accompanying the faster-than-expected GDP growth, consumer price index (CPI) inflation declined less over the first half of the year than we assumed in January. The most recent CPI report from the Bureau of Labor Statistics (BLS), however, showed no growth in the all-item CPI in May.

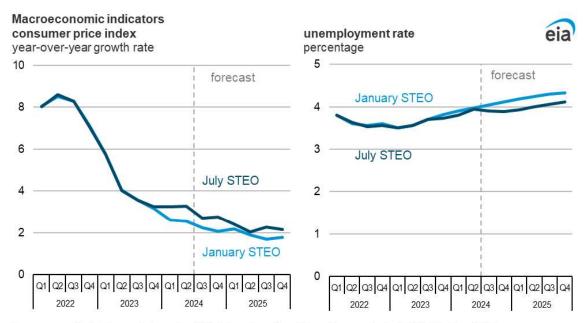
In the first half of this year, the U.S. economy has added an average of 222,000 jobs per month. According to BLS, the unemployment rate now stands at 4.1%, compared with a post-pandemic low of 3.4% in April 2023. Given the strength in other macroeconomic indicators, we now assume the unemployment rate will remain at 4.1% through the fourth quarter of 2025 (4Q25), lower than the 4.3% in our January forecast.





Our macroeconomic forecasts are based on S&P Global's macroeconomic model. We incorporate energy price forecasts from the *Short-Term Energy Outlook* into the model to obtain the final macroeconomic assumptions.

The economic data released since January have implications for future monetary policy and the macroeconomic assumptions that underlie our forecast for the second half of 2024 and 2025. In January, our forecast assumed that the U.S. Federal Reserve would reduce the federal funds rate by 0.25 percentage points in March 2024 and implement three additional quarter point cuts over the course of 2024. However, considering the slower-than-expected decline in inflation, along with faster GDP growth and a resilient labor market, S&P Global now anticipates that the target for the federal funds rate will remain at its current level until December.



Data source: U.S. Energy Information Administration, Short-Term Energy Outlook (STEO), May 2024

Emissions

We expect U.S. energy-related carbon dioxide (CO_2) emissions to increase by almost 1% between 2023 and 2025. CO_2 emissions from petroleum products, notably from increased consumption of jet fuel and diesel, are the largest driver of emissions increases over that period. We expect petroleum-related emissions will increase by 18 million metric tons (1%) between 2023 and 2025 and coal-related emissions increase by 10 million metric tons (1%). Coal emissions rise based on our assumption of a warmer summer, with cooling degree days (CDDs) increasing by 6% in 2024 and remaining unchanged in 2025, increasing electricity demand. We expect U.S. electricity generation to increase by 4% in 2024 and by 1% in 2025. We expect natural gas-related emissions to remain relatively unchanged over the forecast period.

Weather

Heat waves across the United States at the end of June increased the number of cooling degree days (CDDs) in 2Q24 more than we had previously expected. The warmer June weather increased CDDs by about 60 in 2Q24 compared with our June STEO, resulting in 33% more CDDs in 2Q24 than in 2Q23. We now expect the United States to average 1,570 CDDs in 2024, 6% more than in 2023, and for CDDs to remain unchanged in 2025. We expect a slightly cooler heating season this winter (November–March), with 5% more heating degree days compared with last winter.

Table 3a. World Petroleum and Other Liquid Fuels Production, Consumption, and Inventories

U.S. Energy Information Administration | Short-Term Energy Outlook - July 2024

	2023			2024			2025				Year				
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Production (million barrels per day) (a)							_								
World total	101.11	101.48	101.69	102.87	101.78	102.06	102.74	103.11	103.13	104.22	105.42	105.61	101.79	102.43	104.60
Crude oil	77.10	76.60	76.19	77.14	76.54	76.12	76.60	77.30	77.69	78.08	79.08	79.36	76.76	76.64	78.56
Other liquids	24.00	24.88	25.50	25.72	25.24	25.94	26.14	25.81	25.44	26.13	26.34	26.25	25.03	25.78	26.04
World total	101.11	101.48	101.69	102.87	101.78	102.06	102.74	103.11	103.13	104.22	105.42	105.61	101.79	102.43	104.60
OPEC total (b)	32.77	32.46	31.63	31.88	32.02	31.88	32.06	32.04	32.13	32.40	32.70	32.51	32.18	32.00	32.44
Crude oil	27.38	27.23	26.37	26.58	26.63	26.61	26.77	26.71	26.85	27.11	27.42	27.23	26.89	26.68	27.15
Other liquids	5.40	5.22	5.26	5.30	5.40	5.27	5.30	5.33	5.28	5.28	5.28	5.28	5.29	5.32	5.28
Non-OPEC total	68.33	69.02	70.06	70.98	69.76	70.18	70.67	71.07	71.00	71.82	72.72	73.10	69.61	70.42	72.17
Crude oil	49.73	49.36	49.82	50.56	49.92	49.51	49.83	50.59	50.84	50.97	51.66	52.13	49.87	49.96	51.41
Other liquids	18.60	19.66	20.24	20.43	19.84	20.67	20.84	20.48	20.15	20.85	21.06	20.97	19.74	20.46	20.76
Consumption (million barrels per day) (c)															
World total	100.80	101.82	102.28	102.27	101.71	102.65	103.56	103.72	104.10	104.26	105.11	105.23	101.80	102.91	104.68
OECD total (d)	45.09	45.56	45.95	45.98	44.81	45.08	46.17	46.37	45.76	45.38	46.28	46.43	45.65	45.61	45.96
Canada	2.34	2.48	2.63	2.37	2.38	2.40	2.51	2.49	2.48	2.42	2.53	2.50	2.45	2.45	2.48
Europe	13.12	13.57	13.69	13.39	12.85	13.34	13.75	13.51	13.19	13.35	13.76	13.52	13.45	13.36	13.46
Japan	3.68	3.05	3.06	3.38	3.44	2.97	3.07	3.39	3.49	2.89	2.99	3.31	3.29	3.22	3.17
United States	19.66	20.38	20.37	20.56	19.80	20.24	20.70	20.70	20.33	20.58	20.85	20.81	20.25	20.36	20.65
U.S. Territories	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
Other OECD	6.19	5.96	6.09	6.16	6.22	6.01	6.03	6.16	6.15	6.02	6.04	6.17	6.10	6.10	6.09
Non-OECD total	55.71	56.27	56.33	56.30	56.90	57.57	57.40	57.35	58.34	58.88	58.82	58.80	56.15	57.30	58.71
China	16.02	16.22	15.89	16.11	16.36	16.55	16.22	16.44	16.71	16.91	16.58	16.80	16.06	16.39	16.75
Eurasia	4.66	4.82	5.16	5.06	4.69	4.85	5.20	5.10	4.74	4.91	5.26	5.16	4.93	4.96	5.02
Europe	0.74	0.76	0.77	0.77	0.75	0.77	0.77	0.78	0.76	0.78	0.78	0.79	0.76	0.77	0.78
Other Asia	14.57	14.45	13.92	14.22	15.01	15.04	14.42	14.71	15.57	15.55	14.91	15.25	14.29	14.79	15.32
Other non-OECD	19.71	20.02	20.59	20.13	20.09	20.36	20.79	20.33	20.56	20.73	21.29	20.81	20.12	20.39	20.85
Total crude oil and other liquids inventory net withdrawals (mil	lion barrel	s per day)												
World total	-0.30	0.35	0.59	-0.59	-0.08	0.58	0.83	0.61	0.97	0.04	-0.31	-0.38	0.01	0.49	0.08
United States	-0.08	-0.11	-0.25	0.30	0.14	-0.49	-0.06	0.28	0.03	-0.32	-0.09	0.32	-0.03	-0.03	-0.01
Other OECD	0.32	-0.02	-0.15	0.09	-0.07	0.32	0.27	0.10	0.29	0.11	-0.07	-0.21	0.06	0.16	0.03
Other inventory draws and balance	-0.54	0.47	0.99	-0.98	-0.15	0.75	0.62	0.23	0.65	0.25	-0.16	-0.48	-0.01	0.36	0.06
End-of-period commercial crude oil and other liquids inventorion	s (million	barrels)													
OECD total	2,746	2,782	2,815	2,776	2,760	2,765	2,734	2,693	2,664	2,683	2,697	2,688	2,776	2,693	2,688
United States	1,231	1,264	1,283	1,252	1,230	1,265	1,260	1,227	1,224	1,253	1,261	1,232	1,252	1,227	1,232
Other OECD	1,515	1,517	1,531	1,523	1,529	1,500	1,475	1,466	1,440	1,430	1,436	1,456	1,523	1,466	1,456

(a) Includes crude oil, lease condensate, natural gas plant liquids, other liquids, refinery processing gain, and other unaccounted-for liquids. Differences in the reported historical production data across countries could result in some inconsistencies in the delineation between crude oil and other liquid fuels.

(b) OPEC = Organization of the Petroleum Exporting Countries: Algeria, Congo (Brazzaville), Equatorial Guinea, Gabon, Iran, Iraq, Kuwait, Libya, Nigeria, Saudi Arabia, United Arab Emirates, and Venezuela.
(c) Consumption of petroleum by the OECD countries is the same as "petroleum product supplied," defined in the glossary of the EIA Petroleum Supply Monthly (DOE/EIA-0109). Consumption of petroleum by the non-OECD countries is "apparent consumption," which includes internal consumption, refinery fuel and loss, and bunkering.

(d) OECD = Organization for Economic Cooperation and Development: Australia, Australia, Belgium, Canada, Chile, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Latvia, Lithuania, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovakia, Slovenia, South Korea, Spain, Sweden, Switzerland, Turkiye, United Kingdom, and United States.

Notes:

EIA completed modeling and analysis for this report on July 3, 2024.

- = no data available

The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Minor discrepancies with published historical data are due to independent rounding.

Sources:

Historical data: Energy Information Administration International Energy Statistics (https://www.eia.gov/international/data/world).

Forecasts: EIA Short-Term Integrated Forecasting System.

Table 3d. World Crude Oil Production (million barrels per day)
U.S. Energy Information Administration | Short-Term Energy Outlook - July 2024

	Ι	20	23		2024			2025				Year			
	Q1	Q2	23 Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Crude oil production (a)											1				
World total	77.10	76.60	76.19	77.14	76.54	76.12	76.60	77.30	77.69	78.08	79.08	79.36	76.76	76.64	78.56
OPEC+ total (b)	38.20	37.50	36.25	36.34	36.12	35.47	35.58	35.74	36.03	36.38	36.89	36.74	37.07	35.73	36.51
United States	12.63	12.75	13.07	13.26	12.94	13.21	13.32	13.51	13.52	13.72	13.84	13.98	12.93	13.25	13.77
Non-OPEC+ excluding United States	26.27	26.35	26.87	27.54	27.48	27.44	27.70	28.05	28.13	27.98	28.35	28.65	26.76	27.67	28.28
OPEC total (c)	27.38	27.23	26.37	26.58	26.63	26.61	26.77	26.71	26.85	27.11	27.42	27.23	26.89	26.68	27.15
Algeria	1.01	0.98	0.95	0.96	0.91	0.91	-	-	-	-	-	-	0.97	-	-
Congo (Brazzaville)	0.27	0.25	0.26	0.26	0.25	0.25	-	-	-	-	-	-	0.26	-	-
Equatorial Guinea	0.06	0.06	0.06	0.05	0.06	0.05	-	-	-	-	-	-	0.06	-	-
Gabon	0.20	0.21	0.20	0.21	0.21	0.22	-	-	-	-	-	-	0.20	-	-
Iran	2.60	2.74	2.97	3.18	3.24	3.25	-	-	-	-	-	-	2.87	-	-
Iraq	4.41	4.19	4.33	4.33	4.29	4.24	-	-	-	-	-	-	4.32	-	-
Kuwait	2.68	2.59	2.56	2.53	2.46	2.50	-	-	-	-	-	-	2.59	-	-
Libya	1.14	1.15	1.15	1.17	1.10	1.19	-	-	-	-	-	-	1.15	-	-
Nigeria	1.24	1.19	1.21	1.31	1.28	1.23		-	-	-	-	-	1.24	-	-
Saudi Arabia	10.02	10.18	9.02	8.93	9.12	9.02	-	_	-	-	-	-	9.53	_	_
United Arab Emirates	3.06	2.94	2.91	2.90	2.91	2.92	-	_	-	-	-	-	2.95	_	_
Venezuela	0.70	0.75	0.76	0.75	0.79	0.83	-	-	-	-	-	-	0.74	-	-
OPEC+ total (b)	38.20	37.50	36.25	36.34	36.12	35.47	35.58	35.74	36.03	36.38	36.89	36.74	37.07	35.73	36.51
OPEC members subject to OPEC+ agreements (d)	22.94	22.60	21.49	21.48	21.49	21.34	21.68	21.63	21.75	22.01	22.32	22.13	22.12	21.54	22.05
OPEC+ other participants total	15.27	14.90	14.76	14.86	14.63	14.13	13.89	14.11	14.29	14.37	14.57	14.61	14.94	14.19	14.46
Azerbaijan	0.52	0.50	0.49	0.49	0.47	0.47	-				-	-	0.50	-	-
Bahrain	0.17	0.20	0.17	0.15	0.13	0.13			_			_	0.17	_	_
Brunei	0.08	0.06	0.07	0.08	0.08	0.07			_			_	0.07	_	_
Kazakhstan	1.61	1.58	1.49	1.57	1.58	1.50	_	_	_				1.56	_	
Malaysia	0.39	0.36	0.36	0.38	0.37	0.36	_	_	_				0.37	_	
Mexico	1.67	1.67	1.65	1.63	1.60	1.56	_	_	_				1.66	_	
Oman	0.84	0.82	0.80	0.80	0.76	0.76	_	_	_	_	_		0.81	_	
Russia	9.78	9.52	9.49	9.53	9.44	9.18	-	-	-	-	-	-	9.58	-	-
South Sudan	0.13	0.13	0.16	0.17	0.13	0.06	-	-	-	-	-		0.15	-	
		0.13					-	-	-	-	-	-		-	-
Sudan	0.07	0.07	0.07	0.07	0.06	0.03	-	-	-	-	-	-	0.07	-	-
Crude oil production capacity															
OPEC total	30.50	30.31	30.56	30.89	30.98	31.08	31.03	31.32	31.28	31.27	31.26	31.26	30.57	31.10	31.27
Middle East	25.88	25.67	25.90	26.11	26.27	26.28	26.30	26.60	26.60	26.60	26.60	26.60	25.89	26.37	26.60
Other	4.63	4.64	4.67	4.78	4.71	4.79	4.73	4.72	4.68	4.67	4.66	4.66	4.68	4.74	4.67
Surplus crude oil production capacity															
OPEC total	3.13	3.07	4.19	4.31	4.35	4.46	4.26	4.61	4.43	4.16	3.85	4.03	3.68	4.42	4.11
Middle East	3.10	3.02	4.11	4.23	4.25	4.35	4.15	4.50	4.34	4.07	3.78	3.96	3.62	4.31	4.04
Other	0.02	0.05	0.08	0.07	0.11	0.11	0.11	0.10	0.09	0.08	0.07	0.07	0.06	0.11	0.08
Unplanned production outages															
OPEC total	1.94	2.13	1.95	1.52	1.52	1.48			_	-	_		1.88		

⁽a) Differences in the reported historical production data across countries could result in some inconsistencies in the delineation between crude oil and other liquid fuels.

EIA completed modeling and analysis for this report on July 3, 2024. - = no data available
The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Minor discrepancies with published historical data are due to independent rounding.

 $Historical\ data: Energy\ Information\ Administration\ \textit{International Energy Statistics}\ (https://www.eia.gov/international/data/world).$

Forecasts: EIA Short-Term Integrated Forecasting System.

⁽b) OPEC+ total = OPEC members subject to OPEC+ agreements plus Azerbaijan, Bahrain, Brunei, Kazakhstan, Malaysia, Mexico, Oman, Russia, South Sudan, and Sudan.

⁽c) OPEC = Organization of the Petroleum Exporting Countries: Algeria, Congo (Brazzaville), Equatorial Guinea, Gabon, Iran, Iraq, Kuwait, Libya, Nigeria, Saudi Arabia, United Arab Emirates, and Venezuela.

⁽d) Iran, Libya, and Venezuela are not sbuject to the OPEC+ agreements.

Notes:

Table 4a. U.S. Petroleum and Other Liquids Supply, Consumption, and Inventories

U.S. Energy Information Administration | Short-Term Energy Outlook - July 2024

Supply (million barrels per day) U.S. total crude oil production (a) 12.63 12.75 13.07 13.26 12.94 13.21 13.32 13.51 13.52 13.72 13.84 13.98 12.93 13.44 13.94 13.	0.40 1.85 11.51 0.20 1.33 1.16 3.0.03 4.6.72 2.08
Supply (million barrels per day) U.S. total crude oil production (a) 12.63 12.75 13.07 13.26 12.94 13.21 13.32 13.51 13.52 13.72 13.84 13.98 12.93 13.34 13.84 13.98 12.93 13.34 13.84 13.98 12.93 13.34 13.84 13.98 12.93 13.34 13.84 13.98 12.93 13.34 13.84 13.98 13.94 13.	3 13.77 0.40 1.85 11.51 0.20 1.33 1.16 0.03 1.36 0.03 1.20 2.08 2.08 20.65
U.S. total crude oil production (a) 12.63 12.75 13.07 13.26 12.94 13.21 13.32 13.51 13.52 13.72 13.84 13.98 12.93 13.31 Alaska 0.44 0.43 0.40 0.43 0.40 0.43 0.41 0.39 0.42 0.40 0.42 0.40 0.38 0.41 1.85 1.85 1.86 1.86 1.86 1.86 1.86 1.86 1.86 1.86	0.40 1.85 11.51 0.20 1.33 1.16 3.0.03 4.6.72 2.08
Alaska	1.85 11.51 0.20 1.33 1.16 0.03 6.72 2.08
Lower 48 States (excl GOM) (c) 10.31 10.55 10.73 10.96 10.73 10.98 11.11 11.26 11.26 11.46 11.61 11.71 10.64 11.64 Appalachia region 0.16 0.16 0.16 0.15 0.16 0.15 0.16 0.16 0.18 0.19 0.20 0.20 0.21 0.16 0.16 0.18 Bakken region 11.13 1.17 1.28 1.32 1.23 1.28 1.32 1.33 1.31 1.31 1.31 1.34 1.35 1.22 1.25 Eagle Ford region 11.15 1.18 1.19 1.14 1.08 1.10 1.11 1.15 1.15 1.16 1.16 1.16 1.17 1.17 1.18 1.19 1.14 1.08 1.10 1.11 1.15 1.15 1.16 1.16 1.16 1.17 1.17 1.18 1.19 1.14 1.08 1.10 1.11 1.15 1.15 1.16 1.16 1.16 1.17 1.17 1.18 1.19 1.14 1.08 1.10 1.11 1.15 1.15 1.16 1.16 1.16 1.17 1.17 1.18 1.19 1.14 1.08 1.10 1.11 1.15 1.15 1.16 1.16 1.16 1.17 1.17 1.18 1.19 1.14 1.08 1.10 1.11 1.15 1.15 1.15 1.16 1.16 1.16 1.17 1.17 1.18 1.19 1.14 1.08 1.10 1.11 1.15 1.15 1.15 1.16 1.16 1.16 1.17 1.17 1.18 1.19 1.14 1.08 1.10 1.11 1.15 1.15 1.16 1.16 1.16 1.17 1.17 1.18 1.19 1.14 1.08 1.10 1.11 1.15 1.15 1.15 1.16 1.16 1.16 1.17 1.17 1.18 1.19 1.14 1.08 1.10 1.11 1.15 1.15 1.15 1.16 1.16 1.16 1.17 1.17 1.18 1.19 1.14 1.08 1.10 1.11 1.15 1.15 1.15 1.16 1.16 1.16 1.17 1.17 1.17 1.18 1.19 1.14 1.08 1.10 1.11 1.15 1.15 1.15 1.16 1.16 1.16 1.17 1.17 1.18 1.19 1.14 1.08 1.10 1.11 1.15 1.15 1.15 1.15 1.16 1.16 1.16	2 11.51 0.20 1.33 1.16 0.03 6.72 2.08 20.65
Appalachia region 0.16 0.16 0.15 0.16 0.15 0.16 0.15 0.16 0.18 0.19 0.20 0.20 0.21 0.16 0.18 Bakken region 1.13 1.17 1.28 1.32 1.23 1.28 1.32 1.33 1.31 1.31 1.34 1.35 1.22 1.25 Eagle Ford region 1.15 1.18 1.19 1.14 1.08 1.10 1.11 1.15 1.15 1.16 1.16 1.16 1.17 1.18 1.19 1.14 1.08 1.10 1.11 1.15 1.15 1.16 1.16 1.16 1.17 1.11 1.15 1.16 1.16 1.16 1.17 1.15 1.16 1.16 1.16 1.17 1.15 1.16 1.16 1.16 1.17 1.15 1.16 1.16 1.17 1.15 1.16 1.16 1.16 1.17 1.15 1.16 1.16 1.16 1.17 1.15 1.16 1.16 1.16 1.17 1.15 1.16 1.16 1.16 1.16 1.17 1.15 1.16 1.16 1.16 1.16 1.17 1.15 1.16 1.16 1.16 1.16 1.16 1.17 1.15 1.16 1.16 1.16 1.16 1.16 1.16 1.16	0.20 1.33 1.16 0.03 6.72 2.08 20.65
Bakken region	1.33 1.16 3 0.03 4 6.72 2.08 20.65
Bakken region 1.13 1.17 1.28 1.32 1.23 1.28 1.32 1.33 1.31 1.31 1.34 1.35 1.22 1.3 Eagle Ford region 1.15 1.18 1.19 1.14 1.08 1.10 1.11 1.15 1.16 1.16 1.16 1.17 1.7 Haynesville region 0.03 0.0	1.16 0.03 6.72 2.08 20.65
Eagle Ford region	0.03 6.72 2.08 20.65
Permian region	6.72 2.08 20.65
Rest of Lower 48 States 2.12 2.19 2.19 2.23 2.16 2.06 2.07 2.08 2.07 2.08 2.09 2.09 2.18 2.07 Total Supply	2.08
Total Supply	20.65
Crude oil input to refineries 15.25 16.15 16.51 15.93 15.39 16.45 16.35 15.83 15.22 15.96 16.04 15.63 15.96 16.0 U.S. total crude oil production (a) 12.63 12.75 13.07 13.26 12.94 13.21 13.32 13.51 13.52 13.72 13.84 13.98 12.93 13.3 Transfers to crude oil supply 0.39 0.51 0.70 0.58 0.50 0.49 0.45 0.41 0.39 0.47 0.44 0.55 0.4 Crude oil net imports (d) 2.27 2.51 2.61 2.29 2.12 2.66 2.19 1.69 1.26 1.41 1.28 1.01 2.42 2.5 SPR net withdrawals (e) 0.01 0.26 -0.04 -0.04 -0.10 -0.10 -0.12 -0.07 0.00 0.00 0.00 0.05 -0.5 Commercial inventory net withdrawals -0.39 0.12 0.41 -0.10 -0.23 0.02	
U.S. total crude oil production (a)	15.72
Transfers to crude oil supply	
Crude oil net imports (d)	13.77
SPR net withdrawals (e) 0.01 0.26 -0.04 -0.04 -0.10 -0.10 -0.12 -0.07 0.00 0.00 0.00 0.00 0.00 0.05 -0.5 Commercial inventory net withdrawals -0.39 0.12 0.41 -0.10 -0.23 0.02 0.23 -0.04 -0.29 0.11 0.19 -0.08 0.01 0.0 Crude oil adjustment (f) 0.34 0.00 -0.22 -0.06 0.16 0.17 0.28 0.31 0.34 0.30 0.26 0.29 0.01 0.0 Refinery processing gain 0.97 1.01 1.07 1.05 0.91 1.01 1.06 1.05 0.97 1.02 1.06 1.04 1.03 1.0	0.43
Commercial inventory net withdrawals -0.39 0.12 0.41 -0.10 -0.23 0.02 0.23 -0.04 -0.29 0.11 0.19 -0.08 0.01 0.0 Crude oil adjustment (f) 0.34 0.00 -0.22 -0.06 0.16 0.17 0.28 0.31 0.34 0.30 0.26 0.29 0.01 0.2 Refinery processing gain 0.97 1.01 1.07 1.05 0.91 1.01 1.06 1.05 0.97 1.02 1.06 1.04 1.03 1.0	1.24
Crude oil adjustment (f) 0.34 0.00 -0.22 -0.06 0.16 0.17 0.28 0.31 0.34 0.30 0.26 0.29 0.01 0.2 Refinery processing gain 0.97 1.01 1.07 1.05 0.91 1.01 1.06 1.05 0.97 1.02 1.06 1.04 1.03 1.0	0.00
Refinery processing gain	-0.02
·· ••	0.30
	1.02
Natural Gas Plant Liquids Production	6.76
Renewables and oxygenate production (g)	1.40
Fuel ethanol production	1.02
Petroleum products adjustment (h)	0.21
Petroleum products transfers to crude oil supply0.39 -0.51 -0.70 -0.58 -0.50 -0.49 -0.45 -0.41 -0.39 -0.43 -0.47 -0.44 -0.55 -0.4	-0.43
Petroleum product net imports (d)	-4.04
Hydrocarbon gas liquids	-2.72
Unfinished oils	0.31
Other hydrocarbons and oxygenates	-0.07
Motor gasoline blending components	0.65
Finished motor gasoline	-0.74
Jet fuel	0.04
Distillate fuel oil	-0.85
Residual fuel oil	-0.01
Other oils (i)	-0.66
Petroleum product inventory net withdrawals	0.00
Consumption (million barrels per day)	
U.S. total petroleum products consumption	
Hydrocarbon gas liquids	3.67
Other hydrocarbons and oxygenates	
Motor gasoline	
Fuel ethanol blended into motor gasoline	
Jet fuel	
Distillate fuel oil	
Residual fuel oil	
Other oils (i)	1.72
Total petroleum and other liquid fuels net imports (d)	-2.80
End-of-period inventories (million barrels)	
Total commercial inventory	1232.0
Crude oil (excluding SPR)	434.2
Hydrocarbon gas liquids	227.9
Unfinished oils	80.8
Other hydrocarbons and oxygenates	34.9
Total motor gasoline	229.0
Finished motor gasoline	17.4
Motor gasoline blending components	211.6
Jet fuel 37.7 42.7 43.5 39.8 42.2 43.1 43.4 39.7 38.3 39.1 40.3 36.5 39.8 39.8	36.5
Distillate fuel oil	118.2
Residual fuel oil	
Other oils (i)	
Crude oil in SPR (e)	24.7

Crude oil in SPR (e)(a) Includes lease condensate.

- $\textbf{(b)} \ \text{Crude oil production from U.S. Federal leases in the Gulf of Mexico (GOM)}.$
- (c) Regional production in this table is based on geographic regions and not geologic formations.
- (d) Net imports equal gross imports minus gross exports.
- (e) SPR: Strategic Petroleum Reserve
- (f) The crude oil adjustment equals the sum of disposition items (e.g. refinery inputs) minus the sum of supply items (e.g. production).
- (g) Renewables and oxygenate production includes pentanes plus, oxygenates (excluding fuel ethanol), and renewable fuels. Beginning in January 2021, renewable fuels includes biodiesel, renewable diesel, renewable jet fuel, renewable heating oil, renewable naphtha and gasoline, and other renewable fuels. For December 2020 and prior, renewable fuels includes only biodiesel.
- (h) Petroleum products adjustment includes hydrogen/oxygenates/renewables/other hydrocarbons, motor gasoline blending components, and finished motor gasoline.
- (i) Other oils includes aviation gasoline blending components, finished aviation gasoline, kerosene, petrochemical feedstocks, special naphthas, lubricants, waxes, petroleum coke, asphalt and road oil, still gas, and miscellaneous products.

Notes:

EIA completed modeling and analysis for this report on July 3, 2024.

- = no data available
- The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Minor discrepancies with published historical data are due to independent rounding.

Sources

Historical data: Latest data available from Energy Information Administration databases supporting the following reports: *Petroleum Supply Monthly*, DOE/EIA-0109; Petroleum Supply Annual, DOE/EIA-0340/2; and Weekly Forecasts: EIA Short-Term Integrated Forecasting System.

Table 5a. U.S. Natural Gas Supply, Consumption, and Inventories

U.S. Energy Information Administration | Short-Term Energy Outlook - July 2024

		202	23			2024			2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Supply (billion cubic feet per day)															
U.S. total marketed natural gas production	111.2	112.5	113.6	115.2	113.4	112.2	112.9	113.6	113.6	114.4	115.1	116.6	113.1	113.0	114.9
Alaska	1.1	1.0	0.9	1.0	1.1	1.0	0.9	1.0	1.0	0.9	0.9	1.0	1.0	1.0	1.0
Federal Gulf of Mexico (a)	2.1	1.9	2.0	1.9	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.8	2.0	1.8	1.8
Lower 48 States (excl GOM) (b)	108.0	109.6	110.7	112.2	110.4	109.3	110.2	110.8	110.8	111.7	112.4	113.8	110.1	110.2	112.2
Appalachia region	35.4	35.7	36.0	36.7	36.0	34.6	34.8	34.9	35.0	34.9	34.7	34.9	36.0	35.1	34.9
Bakken region	2.8	3.0	3.2	3.3	3.2	3.2	3.2	3.3	3.2	3.3	3.3	3.3	3.1	3.2	3.3
Eagle Ford region	6.7	6.7	6.8	6.9	6.5	6.6	6.7	6.8	6.7	7.0	7.1	7.2	6.8	6.7	7.0
Haynesville region	16.5	16.6	16.4	16.0	15.6	15.2	14.9	14.9	15.0	15.3	15.7	16.4	16.4	15.2	15.6
Permian region	21.7	22.5	23.1	23.9	24.0	23.6	24.1	24.7	24.9	25.6	26.0	26.4	22.8	24.1	25.7
Rest of Lower 48 States	24.9	25.0	25.1	25.4	25.1	26.0	26.5	26.3	25.9	25.7	25.7	25.5	25.1	26.0	25.7
Total primary supply	103.0	78.0	83.9	91.7	104.0	78.3	82.9	92.3	104.2	77.5	82.6	92.8	89.1	89.4	89.2
Balancing item (c)	0.4	-0.4	-1.4	-0.7	-0.3	-1.1	-1.0	-1.0	-0.2	-0.1	0.8	-0.1	-0.5	-0.8	0.1
Total supply	102.6	78.4	85.3	92.4	104.2	79.4	83.9	93.4	104.4	77.6	81.9	92.9	89.6	90.2	89.1
U.S. total dry natural gas production	102.3	103.2	104.1	105.6	104.1	102.4	103.4	104.1	104.0	104.7	105.3	106.7	103.8	103.5	105.2
Net inventory withdrawals	12.0	-11.7	-6.4	0.3	12.7	-9.6	-5.9	4.3	15.1	-10.9	-6.7	3.4	-1.5	0.4	0.2
Supplemental gaseous fuels	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Net imports	-11.8	-13.2	-12.6	-13.7	-12.7	-13.5	-13.8	-15.2	-14.9	-16.3	-17.0	-17.4	-12.8	-13.8	-16.4
LNG gross imports (d)	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.0	0.1	0.1
LNG gross exports (d)	11.4	11.8	11.4	13.0	12.4	11.5	11.6	13.4	13.7	13.8	14.4	15.3	11.9	12.2	14.3
Pipeline gross imports	8.4	7.3	7.9	8.2	9.0	7.1	7.3	7.5	8.3	7.0	7.2	7.5	8.0	7.7	7.5
Pipeline gross exports	8.9	8.7	9.2	8.9	9.4	9.1	9.4	9.3	9.5	9.5	9.9	9.6	9.0	9.3	9.6
Consumption (billion cubic feet per day)															
Total consumption	103.0	78.0	83.9	91.7	104.0	78.3	82.9	92.3	104.2	77.5	82.6	92.8	89.1	89.4	89.2
Residential	23.5	7.3	3.6	15.0	22.8	6.6	3.8	16.1	24.2	7.3	3.8	16.1	12.3	12.3	12.8
Commercial	14.5	6.4	4.7	10.7	14.3	6.3	5.2	11.4	15.1	6.8	5.3	11.4	9.1	9.3	9.6
Industrial	24.8	22.4	22.0	24.3	24.9	22.1	21.6	23.8	24.7	21.7	21.5	23.8	23.4	23.1	22.9
Electric power (e)	30.8	33.4	44.8	32.6	32.5	34.9	43.6	31.9	30.6	33.2	43.1	32.2	35.4	35.7	34.8
Lease and plant fuel	5.3	5.4	5.4	5.5	5.4	5.4	5.4	5.4	5.4	5.5	5.5	5.6	5.4	5.4	5.5
Pipeline and distribution	3.9	2.9	3.1	3.4	3.9	2.9	3.1	3.5	4.0	2.9	3.1	3.5	3.3	3.4	3.4
Vehicle	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
End-of-period working natural gas inventories (billion cubic fe	et) (f)														
United States total	1,850	2,902	3,490	3,457	2,301	3,178	3,720	3,326	1,971	2,962	3,577	3,266	3,457	3,326	3,26
East region	334	646	853	787	369	665	856	753	350	626	805	730	787	753	73
Midwest region	417	701	993	950	507	785	1,068	927	455	711	1,028	904	950	927	90-
South Central region	919	1,138	1,092	1,183	1,003	1,175	1,206	1,156	853	1,146	1,193	1,151	1,183	1,156	1,15
Mountain region	79	171	239	228	168	241	252	204	120	189	238	204	228	204	20
Pacific region	74	216	278	280	231	284	306	257	168	265	281	248	280	257	24
Alaska	27	30	35	30	24	27	33	29	24	27	32	28	30	29	28

⁽a) Marketed production from U.S. Federal leases in the Gulf of Mexico.

Notes:

EIA completed modeling and analysis for this report on June 6, 2024.

Minor discrepancies with published historical data are due to independent rounding.

Sources

Historical data: Latest data available from Energy Information Administration databases supporting the following reports: Natural Gas Monthly, DOE/EIA-0130; and Electric Power Monthly, DOE/EIA-0226. Forecasts: EIA Short-Term Integrated Forecasting System.

⁽b) Regional production in this table is based on geographic regions and not geologic formations.

⁽c) The balancing item is the difference between total natural gas consumption (NGTCPUS) and total natural gas supply (NGPSUPP).

⁽d) LNG: liquefied natural gas

⁽e) Natural gas used for electricity generation and (a limited amount of) useful thermal output by electric utilities and independent power producers.

⁽f) For a list of states in each inventory region refer to Weekly Natural Gas Storage Report, Notes and Definitions (http://ir.eia.gov/ngs/notes.html).

^{- =} no data available

The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Fluor Joint Venture Moves One Step Closer to Completion and Startup of LNG Canada Train One with Placement of Final Weld



Members of the Outside Battery Limits Closure Weld Team following completion of the final weld on the first production train at the LNG Canada project, in Kitimat, British Columbia, Canada. (Photo: Business Wire)

July 08, 2024 04:06 PM Eastern Daylight Time

IRVING, Texas--(BUSINESS WIRE)--Fluor Corporation (NYSE: FLR) is pleased to announce completion of the final weld on the first production train at the LNG Canada project, in Kitimat, British Columbia, Canada. This marks a pivotal moment in the construction of one of the largest energy projects in Canadian history.

"The significance of achieving the last weld to support Train One completion is a testament to the collaborative efforts of the JGC-Fluor project team, subcontractors and a skilled and dedicated workforce"

The final weld took 48 hours of continuous work from teams of welders working in shifts. More than 380 pipe welders have worked on the project since construction began in 2018.

Fluor and JGC Corporation make up the JGC-Fluor joint venture, which is delivering multiple aspects of the LNG Canada megaproject, including engineering, procurement, fabrication and delivery of modules, as well as construction of the project's infrastructure and utilities, marine structures and LNG storage tank.

"The significance of achieving the last weld to support Train One completion is a testament to the collaborative efforts of the JGC-Fluor project team, subcontractors and a skilled and dedicated workforce," said Jim Breuer, President of Fluor's Energy Solutions business. "We are now one step closer to the introduction of gas and start-up."

LNG Canada is a joint venture between Shell, Petronas, PetroChina, Mitsubishi Corporation and Korea Gas Corporation. The project will have an initial capacity to produce 12.7 metric tonnes (14 million tons) of LNG per year with first shipment expected by the middle of 2025.

About Fluor Corporation

Fluor Corporation (NYSE: FLR) is building a better world by applying world-class expertise to solve its clients' greatest challenges. Fluor's nearly 34,000 employees provide professional and technical solutions that deliver safe, well-executed, capital-efficient projects to clients around the world. Fluor had revenue of \$15.5 billion in 2023 and is ranked 265 among the Fortune 500 companies. With headquarters in Irving, Texas, Fluor has provided engineering, procurement and construction services for more than a century. For more information, please visit www.fluor.com or follow Fluor on Facebook, Instagram, LinkedIn, X and YouTube.

#EnergySolutions

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Media Release

Thursday, 11 July 2024



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WOODSIDE AND CPC SIGN AGREEMENT FOR LONG-TERM LNG SUPPLY

Woodside has signed a sale and purchase agreement (SPA) with CPC Corporation, Taiwan (CPC) for the long-term supply of liquefied natural gas (LNG) to Taiwan.

Under the SPA, Woodside will supply approximately 6 million tonnes of LNG on a delivered basis over 10 years, commencing in July 2024.

Woodside may also deliver approximately 8.4 million tonnes of LNG to CPC for a further 10 years, from 2034 to 2043, subject to conditions and agreement on terms for this period.

LNG delivered to CPC under the SPA will be sourced from volumes across Woodside's global portfolio.

Woodside CEO Meg O'Neill welcomed the SPA, the company's first long-term agreement for sales to Taiwan.

"This agreement with CPC for long-term supply to Taiwan is a first for Woodside and another demonstration of the ongoing demand for Australian LNG in Asian markets. It also reinforces the value our customers place on Woodside's ability to maintain safe and reliable supply of energy into the 2030s."

About CPC

CPC is Taiwan's state-owned oil and gas company. It is responsible for supplying sufficient energy to the domestic market. CPC's business areas include oil and gas exploration and production, refining, petrochemicals, lubricants, solvents and chemicals. It is also Taiwan's sole importer and supplier of natural gas.

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Cheap Canadian Oil Displaces Iraqi Imports on US West Coast 2024-06-24 12:00:00.5 GMT

By Robert Tuttle

(Bloomberg) -- US West Coast refiners are replacing their heavy Iraqi oil imports with cheaper crude from Canada as the newly expanded Trans Mountain pipeline reshuffles trade flows across the Pacific.

California and Washington are set to import about 150,000 barrels a day of Canadian crude by tanker in June — a seven-fold increase from average volumes, according to preliminary Vortexa data. At the same time, imports of Iraq's Basrah Heavy crude are poised to plunge to just 3,587 barrels a day from 76,000 barrels in May.

The Trans Mountain expansion, which started up in May, can bring 590,000 barrels a day of crude from Canada's oil sands to Vancouver for export. That's potentially a boon for refiners on the US West Coast, who would otherwise pay several dollars per barrel more for Iraqi crude. The trade flow also signals that the US will, for now, remain a dominant buyer of Canadian oil, even as the pipeline gives producers access to coveted Asia markets.

While Trans Mountain still isn't running at full capacity, the company expects 22 tankers to ship crude from Vancouver this month. More than 81,000 barrels a day are heading to China. Another 50,000 barrels a day is going to India, the first such movement off Canada's Pacific Coast.

As Canadian imports to the US West Coast rise, shipments of medium, low-sulfur Brazilian oil Tupi are falling along with Basrah Heavy. The benchmark heavy Western Canadian Select in Alberta trades at a discount to US benchmark West Texas Intermediate of about \$13 a barrel in Alberta, or about \$67 a barrel, according to General Index pricing on Bloomberg. Basrah Heavy trades at \$5.55 discount to dated Brent, or more than \$80 a barrel.

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To view this story in Bloomberg click here: https://blinks.bloomberg.com/news/stories/SFEBO0DWX2PS

previous quarter, Alvheim, Skarv and Valhall delivered stable production. At denver gig we saw a reduction due to a combination of natural decline, plant maintenance and a shutdown linked to the startup of Hans. At Johan Sverdrup. It's a pleasure to see just how it keeps on performing. This giant field with almost 3 billion barrels in initial reserves was originally designed for a gross oil capacity of 660,000 barrels per day. Last year this was increased to 755,000 barrels, if we also include natural gas, the field has a capacity to deliver close to 800,000 barrels of oil equivalents per day and the performance has been nothing but remarkable with high production efficiency, very low production cost of around \$2 per barrel and with maybe the lowest emission intensity in the industry of less than 1 kilogram of CO2 per barrel. In the second quarter, Aker BP share of production from Johan Sverdrup increased to 241,000 barrels of oil equivalents per day. As we have previously discussed, water production has been increasing in some of the wells over the last year. This is as expected and something that the operator is managing but continuously optimizing production on a well by well basis. We are also adding new wells with four added in the first half of 2024 and the fifth well have been started up now in July. Another five wells are planned for the second half. As of today, Johan Sverdrup continues to produce at the elevated plateau and the ongoing drilling activity will help to maintain this level until late '24 or early '25. The next step is to drill additional laterals from existing wellbores to increase reservoir exposure and mitigate water production. We are also approaching a concept select for phase 3. This is a project that will involve subsea wells tied back to the Johan Sverdrup field center with production In startup targeted from late '27. At Aker BP, we believe that maintaining low cost is crucial for gaining a competitive edge in the oil and gas industry. And we systematically work towards this goal and I'm very pleased with the progress we've made. Our production cost for the quarter was \$6.40 per barrel, well within our full year guidance of \$7. This quarter, the production cost was positively impacted by high production volumes, limited maintenance activities and favorable currency effect, but yet it marks a very strong start of 2024 when comparing our production costs to those of the relevant industry peers. Aker BP maintains a strong competitive position as illustrated in the chart to the right of data from Wood Mac show that Aker BP has the lowest production cost among a group of 20 comparable companies. Aker BP's greenhouse gas emissions were below 3 kilograms of CO2 equivalents per barrel in the second quarter, marking a significant improvement over the last few years. This progress is driven by enhanced energy efficiency and an increased share of production from fields powered from shore. This outstanding performance cement our position as a global industry leader in greenhouse gas emissions intensity, a trend consistently demonstrated in the recent quarters among the approximately 300 largest upstream oil and gas companies worldwide. Aker BP stands out as one of the best in emission intensity, as shown in this chart. This position gives us an excellent starting point for further reductions, we are committed to continually reducing emissions from our operations, which is a crucial part of our strategy to achieve net zero emissions across our operations by 2030. Beyond that point, we plan to offset the remaining emissions from nature based carbon solutions. (Video Presentations) We are well underway with the execution of our large project portfolio, which will unlock nearly 800 million barrels of oil equivalent and grow Aker BP's production to over 500,000 barrels per day in 2028. These projects have robust economics with breakeven oil prices as low as \$35 to \$40 per barrel and a rapid payback period of one to two years. At an oil price of \$65 per barrel. The activity has now ramped up to full speed across the project portfolio, and fabrication and

And right now we're actually seeing that we're in that bend where you actually start tapering off the decline rate. And the models are actually working pretty well. So I'm more comfortable that you, for the remaining of 24 and into 25, we'll see a more stable rate out of the Edvard Greige Eva rosten hub barrier. Hans will offset it to a certain degree, but not entirely. But then there are also infill drills, infill wells to be drilled on at Edvard Greige in 2025. And then, of course, the satellites come on stream in 27.

So this is kind of conventional oil field practice. It's just that normally in Aker BP, when we take over these fields, they have already gone off plateau and we do these kind of re-development cases. In this case, we're actually following down the track before we're deploying the redevelopment activities. So we're just applying the. BP model, also to the Eva Greg, Eva Rosenhub. In terms of CO2 storage, I see that as optionality. At this point in time, I've been really, really clear that Aker BP is a pure play oil and gas company focused on the Norwegian continental shelf. An Aker BP will remain a pure play oil and gas company focused on the Norwegian continental shelf. The reason that we are looking at this with, I would say a fairly small number of people is one. It gives us optionality. If there are regulation changes potential to store CO2, it could potentially be used to offset rather than nature based offset mechanisms you will see in the net zero act, for example, so we don't really know how that game will play out. And therefore it's a very cheap, call it insurance or optionality for us going forward, if this is to be an activity with a significant cop expand, we will look at structures that are more optimal towards the Aker BP existing oil and gas activities.

Q - Victoria McCulloch (BIO 18745417 <GO>)

Super. Thanks very much.

A - Kjetil Bakken {BIO 20629786 <GO>}

Thank you, Victoria. Next question is from Mark Wilson from Jefferies. Please go ahead, Mark.

Q - Mark Wilson {BIO 16486034 <GO>}

Okay, good morning. Thank you. Good morning, gents. My question, the first question is, we're very clear on Johan Sverdrup oil production capacity 755 million. And you say with gas it's almost 800,000 pounds of oil a day but can I ask what the water handling capacity is, given the discussion on water coning, and then if you are at that water handling capacity, which meaning that optimization is really the one variable you have as you bring on new production wells. I have one follow up. That's my first question.

A - Karl Johnny Hersvik (BIO 18337255 <GO>)

Yeah, so water handling about. That's an interesting question. So right now we're actually at liquid maximum, and that liquid maximum is being used for oil processing, essentially. Right. We could handle significant amounts of water. So in terms of processing plant water handling capacity would probably never be the

main restriction on Johan Sverdrup. It will be more about how you maximize the total liquid handling capacity at Johan Sverdrup.

And then of course, we are re injecting all the produced water. So re injection capacity could be an issue. At this point in time, we're injecting five times more than we are producing, so it's unlikely to become a restriction in the short term. And then you will have call it produced water quality issues, which are usually actually a case when you have a low water cut and not a high water cut, because then you get into a water continuous phase So the way the process plant is set up, I think this will essentially be driven by the water cut and the available well capacity and the wells and not driven by topside water handling capacity. I mean, this is, to be honest, Mark, this is so overdesigned that you can process almost anything.

Q - Mark Wilson {BIO 16486034 <GO>}

Got it. Okay. Well, my second question and my last one now is you reiterated expect plateau to extend into very late this year or early '25. That would infer that those multilateral wells that you're going to bring on next year, you don't expect them to be able to maintain the plateau in the manner that the new production wells you're bringing on this year do. It'd just be interesting to understand the difference there?

A - Karl Johnny Hersvik (BIO 18337255 <GO>)

Yes. So, the key difference is that when we're now drilling the last ten wells, that means that we have a lot of experience with how the existing wells are performing. We're more uncertain on how these multilaterals will be performing when we put them on stream. And this is always the case, and we start with being a little bit conservative and then we get more expectancy correct, if you want, as we get more experience. So we could end up actually with multilaterals that are really, really good. It's just that the modeling right now shows that we will probably not have the flow area in these multilaterals that we used to in the big ten and three quarter inch production wells that we're currently producing.

Q - Mark Wilson {BIO 16486034 <GO>}

That's very clear. Thank you so much. My goodness 10 and 3 quarter. Okay, I'll hand it over. And well done so far.

A - Karl Johnny Hersvik (BIO 18337255 <GO>)

Thank you.

A - Kjetil Bakken {BIO 20629786 <GO>}

That was the last question, I believe. So. That's it.

A - Karl Johnny Hersvik (BIO 18337255 <GO>)

That's good. And that means that we're not essentially logging off here from the Aker BP headquarters, but at least we wish you an excellent summer break for those who are about to go out into a summer break and for those who are not, I wish you a



https://www.sodir.no/en/whats-new/news/general-news/2024/high-price-to-pay-for-halting-exploration-for-oil-and-gas/

High price to pay for halting exploration for oil and gas

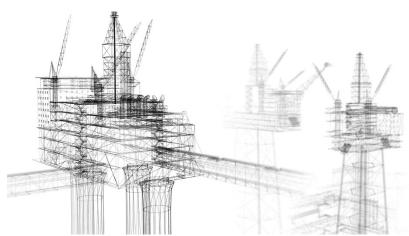


Illustration of a production facility on the Norwegian Continental Shelf.

11/03/2024 Stopping exploration activity on the Norwegian shelf will accelerate the scale-down of the oil and gas industry.

The Climate Change Committee's report was broadly covered when it was published last autumn. The deadline for comments regarding the report has now expired, and the Norwegian Offshore Directorate has submitted a comprehensive consultation response in which we point out significant deficiencies in this report. In light of this, Torgeir Stordal, Director General of the Norwegian Offshore Directorate, wrote this article, which was first published on altinget.no on 11 March.

This will be very harmful for the Norwegian economy and will complicate Europe's situation. Is that truly what we want?

Among other things, the Committee has proposed the development of a strategy for the tail-end phase of Norwegian petroleum activities. Until this strategy is in place, the Committee recommends not awarding new licences for exploration, production or installation and operation.

The Norwegian Offshore Directorate just submitted its input on the report. We believe that the Committee's proposals will have a substantial socio-economic impact if they are adopted. The purpose of a tail-end phase strategy is to discontinue profitable activity faster than what would otherwise have been the case.

The Committee has not addressed the major consequences this will have for value creation, employment around the country and state revenues. It could also weaken the EU's security of supply.

A temporary hiatus will immediately result in reduced exploration activity on the Norwegian shelf, and will weaken the basis for new discoveries that can be developed. Time-critical and profitable oil and gas resources could be lost and existing infrastructure will be shut down earlier than planned.

The 2050 Climate Change Committee has bolstered its mandate and is advocating for an amendment to the Climate Act when it proposes to cut emissions from Norwegian territory by 90-95 per cent by 2050 compared with 1990. This means disregarding the possibility of purchasing emission credits - which are among the most

effective ways to attempt to reach climate targets. The cost of domestic cuts can be much higher than equivalent cuts in the EU.

163,000 jobs in play

Exploration activity on the Norwegian shelf has provided substantial values to society over the last 20 years. Overall net revenues are estimated at more than NOK 3000 billion.

163,000 people were directly or indirectly employed by the petroleum industry in 2020, which means about 6 per cent of total employment in Norway. The industry creates jobs throughout the country and helps maintain less centralised population patterns.

Production is declining on its own

The Committee presumes that activity in the oil and gas industry on the Norwegian shelf is too high leading up to 2050, which means that measures must be implemented to cut production.

On the other hand, the Norwegian Offshore Directorate expects activity in the industry to naturally decline following a production peak in 2025. The production decline towards 2050 is within what the Intergovernmental Panel on Climate Change and the IEA have projected is in line with successfully following up the Paris Agreement.

Despite the decline in activity, the Norwegian Offshore Directorate expects the industry to continue creating significant values leading up to 2050. The net cash flow in 2030-2050 is expected to amount to 4.5 thousand billion 2024-NOK. While the estimate is uncertain, the State's revenues in the form of taxes and ownership will account for close to 90 per cent of this.

Significant values could be lost

The Committee does not want to build new infrastructure that commits us to emissions toward 2050 and beyond. This means that no new export capacity will be built in the Barents Sea. If so, society will be losing out on substantial values.

The Norwegian Offshore Directorate projects that there are significant resources left to discover in the Barents Sea, but the LNG plant on Melkøya has no available export capacity beyond the gas from Snøhvit. This lack of capacity affects the companies' interest in exploration. Gas discoveries are of little value if the gas cannot be transported to the market. Without increased capacity, all other gas resources in the Barents Sea will remain stranded for a long time, which means that society can lose out on substantial values. At the same time, the energy situation in Europe indicates that there will be a need for gas for a long time to come.

Security for Europe

The energy crisis following Russia's invasion of Ukraine demonstrates the importance of stable gas deliveries from Norway to Europe. In 2022, Norway increased its gas exports by about 100 TWh of energy, the equivalent of about 65 per cent of all Norwegian power generation that year. Without Norwegian gas, it would have been more difficult to cover Europe's demand for gas, and the price of energy would have been higher for all Europeans. Norway can be a safe and stable supplier to Europe for many years to come, but security of supply and geopolitics are crucial considerations that the 2050 Climate Change Committee does not appear to emphasise in its assessments.

The Norwegian Offshore Directorate would like to see calculations of the cost of these proposed measures for the petroleum industry for the broader society. As no such calculations have been made, the Committee's recommendations are deficient and misleading, given that socio-economically profitable measures are being replaced by more costly measures.

Updated: 11/03/2024

News Story

07/08/2024 06:41:16 [BN] Bloomberg News

Russia's Crude Oil Refining Rate Rose in First Days of July

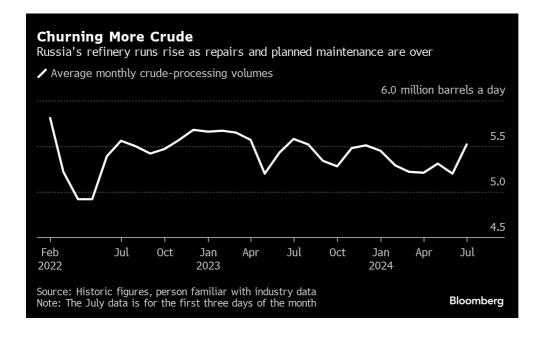
- The nation processed 5.52 million b/d of crude on July 1-3
- Refineries are completing planned works, repairs after attacks

By Bloomberg News

(Bloomberg) -- Russia's oil processing in the first days of July rose as the nation's downstream industry is completing seasonal maintenance and repairs after Ukrainian drone attacks.

The nation churned through 5.52 million barrels a day of crude on July 1–3, according to a person with knowledge of industry data. If sustained, that would be the highest weekly level since the second half of December, the last month before flurries of Ukrainian drone attacks on Russia's downstream, historical figures show.

Daily refinery runs rose by more than 325,000 barrels a day over the first three days of July compared with the average for most of June, when several independent facilities were targeted in one of the largest swarm attacks from drones since the war in Ukraine began.



Last week, Russia's Energy Ministry said two unnamed refineries, one in the central European part of Russia and the other in the south, were finalizing their seasonal repairs. Once the facilities are back online, this would lead to higher national gasoline production in the last ten days of July, according to the ministry.

Last year, Russian refineries had largely completed seasonal maintenance by late June, while this year the traditional spring slowdown in crude processing has been aggravated by repeated Ukrainian drone attacks. In the last several

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News Story

weeks, the drones mainly targeted facilities in Russia's southern regions.

Oil refining, one of Russia's most important industries, has been a target of Ukrainian drone strikes since late January as Kyiv seeks to curb Moscow's ability to finance its military aggression and curb fuel supplies to front-line troops. The repairs forced the government to ban gasoline exports for the most of spring to ensure stable supplies of the fuel to the domestic market.

Russia's refinery runs are closely monitored by oil market watchers as it's one of a few remaining indicators – alongside seaborne crude exports – of trends in the nation's crude production after the government classified official output data.

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News Story

07/09/2024 07:34:35 [BN] Bloomberg News

Russia's Crude Shipments Drop by the Most Since Ukraine Invasion

Slump in weekly flows drags four-week average to the lowest since February

By Julian Lee

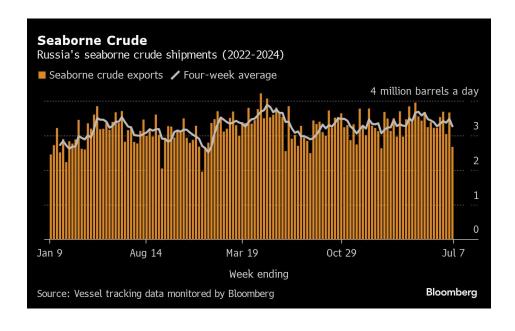
(Bloomberg) — Russia's weekly crude exports crashed by the most since before the 2022 invasion of Ukraine in the seven days to July 7, with the less volatile four-week average falling to the lowest since February.

There was no clear cause for the slump in shipments. There were no gaps in loading programs to suggest maintenance work and no reports of storms affecting the berthing or loading of vessels. But shipments were down week-on-week from the Baltic, the Black Sea and the Pacific.

Russia's improving compliance with an OPEC+ output target may be reducing crude available for export. Using Moscow's conversion factor of 7.18 barrels per ton, production fell by about 360,000 barrels a day between March and June. A recovery in refinery runs may also have cut shipments. Data for the first few days of July put processing at the highest since December, with completion of seasonal maintenance and repairs after Ukrainian attacks.

Rosneft PJSC and Lukoil PJSC, Russia's biggest crude exporters, plan to cut their combined shipments from Novorossiysk by about 200,000 barrels a day this month from the June level, according to Bloomberg calculations, after resuming refinery operations at their Tuapse and Norsi plants.

The gross value of Russia's crude shipments also fell in the seven days to July 7, but the drop was cushioned by a fourth straight week-on-week increase in oil prices.



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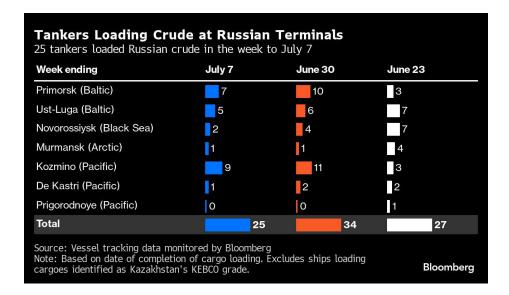
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Separately, vessels targeted by Western authorities that Moscow relies on to transport its oil are mostly remaining idle after being sanctioned. While three of the 21 ships owned by Russia's state-controlled Sovcomflot PJSC have taken on cargoes and subsequently disappeared from automated tracking systems, others remain inactive.

All three crude tankers sanctioned by the UK on June 13 remain anchored off the Ust-Luga oil terminal, despite earlier featuring in loading programs for Russia's Baltic ports. It is unclear whether they will actually take on cargoes, though, with all now having disappeared from partial line-ups seen by Bloomberg. Similarly, none of the crude carriers sanctioned by the European Union has loaded a cargo since the directive was published on June 25.

Crude Shipments

A total of 25 tankers loaded 18.7 million barrels of Russian crude in the week to July 7, vessel-tracking data and port agent reports show. That was a sharp drop from 25.66 million barrels the previous week.



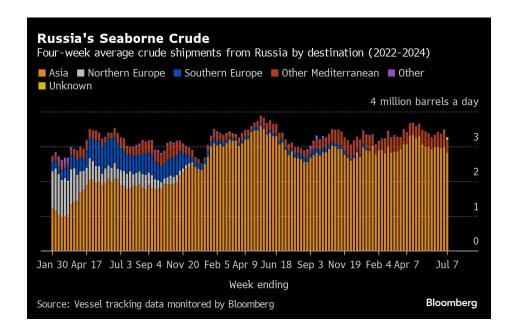
Russia's seaborne crude flows in the week to July 7 slumped by about 990,000 barrels a day to 2.67 million, its lowest since the final week of January, when storms slashed shipments from the Pacific port of Kozmino. The less volatile four-week average was also down, falling by about 215,000 barrels a day to a 20-week low of 3.27 million.

Shipments were lower from almost all of Russia's crude export terminals. The only exceptions were Murmansk, where exports remained muted at just one vessel, and the Sakhalin Island terminal of Prigorodnoye, which saw no shipments for a second week.

After last week's slump, crude shipments so far this year are virtually unchanged from the average for the whole of 2023.

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Russia terminated its export targets at the end of May, opting instead to restrict production, in line with its partners in the OPEC+ oil producers' group. The country's output target is set at 8.978 million barrels a day until the end of September, after which it is scheduled to rise at a rate of 39,000 barrels a day each month until September 2025, as long as market conditions allow.

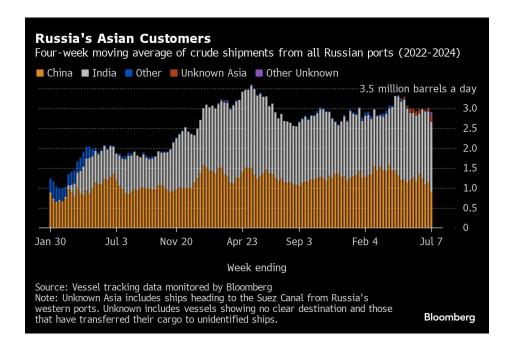
Two cargoes of Kazakhstan's KEBCO were loaded at Ust-Luga and one at Novorossiysk during the week.

Flows by Destination

• Asia

Observed shipments to Russia's Asian customers, including those showing no final destination, fell to a three-and-a-half-month low of 2.9 million barrels a day in the four weeks to July 7.

News Story



About 900,000 barrels a day of crude was loaded onto tankers heading to China. The Asian nation's seaborne imports are boosted by about 800,000 barrels a day of crude delivered from Russia by pipeline, either directly, or via Kazakhstan.

Flows on ships signaling destinations in India averaged about 1.75 million barrels a day, down from the revised figure of 1.78 million for the period to June 30.

Both the Chinese and Indian figures are likely to rise as the discharge ports become clear for vessels that are not currently showing final destinations.

The equivalent of about 170,000 barrels a day was on vessels signaling Port Said or Suez in Egypt. Those voyages typically end at ports in India or China and show up as "Unknown Asia" until a final destination becomes apparent.

The "Other Unknown" volumes, running at about 80,000 barrels a day in the four weeks to July 7, are those on tankers showing no clear destination. Most originate from Russia's western ports and go on to transit the Suez Canal, but some could end up in Turkey. Others may be moved from one vessel to another, with the majority of such transfers now taking place in the Mediterranean, most recently off Morocco, or near Sohar in Oman.

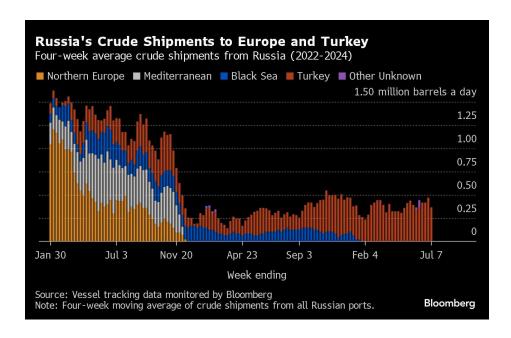
Russia's oil flows continue to be complicated by the Greek navy carrying out exercises in an area that's become associated with the transfer of the nation's crude. These activities have now been extended to July 15.

Crude Shipments to Asia Shipments of Russian crude to Asian buyers in million barrels a day												
4 weeks ending	China	India	Other	Unknown Asia	Other Unknown	Total						
June 2, 2024	1.17	1.66	0.00	0.10	0.00	2.93						
June 9, 2024	1.34	1.53	0.00	0.10	0.00	2.97						
June 16, 2024	1.25	1.72	0.00	0.03	0.00	3.00						
June 23, 2024	1.09	1.83	0.00	0.04	0.00	2.95						
June 30, 2024	1.14	1.78	0.00	0.06	0.03	3.01						
July 7, 2024	0.90	1.75	0.00	0.17	80.0	2.90						
Source: Vessel tracking	data compiled b	y Bloomberg	J			Bloomberg						

• Europe and Turkey

Russia's seaborne crude exports to European countries have ceased, with flows to Bulgaria halted at the end of last year. Moscow also lost about 500,000 barrels a day of pipeline exports to Poland and Germany at the start of 2023, when those countries stopped purchases.

Turkey is now the only short-haul market for shipments from Russia's western ports, with flows in the 28 days to July 7 edging lower to about 365,000 barrels a day.



Export Value

The gross value of Russia's crude exports slumped to \$1.44 billion in the seven days to July 7 from about \$1.92 billion

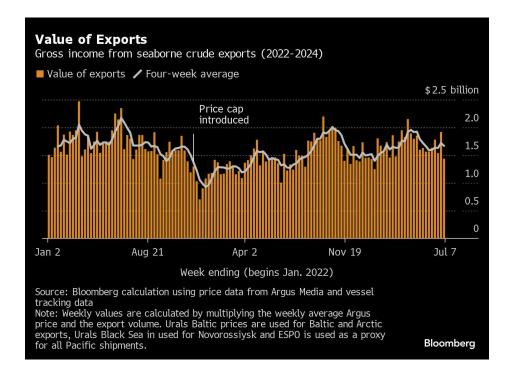
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in the period to June 30. The big drop in flows was partly offset by the fourth straight week-on-week increases in prices for Russia's major crude streams to lessen the drop in revenues. Even so, weekly gross revenue was still the lowest since the final week of January.

Export values at Baltic ports were up week-on-week by more than \$2 a barrel, while key Pacific grade ESPO rose by about \$1.90 a barrel. The price of crude shipped from Novorossiysk rose by \$2.25 a barrel. Delivered prices in India also increased, up by about \$1.75 a barrel, all according to numbers from Argus Media.

Four-week average income was also down, falling by about \$50 million to \$1.67 billion a week. The four-week average peak of \$2.17 billion a week was reached in the period to June 19, 2022.

During the first four weeks after the Group of Seven nations' price cap on Russian crude exports came into effect in early December 2022, the value of seaborne flows fell to a low of \$930 million a week, but soon recovered.



NOTES

This story forms part of a weekly series tracking shipments of crude from Russian export terminals and the gross value of those flows. The next update will be on Tuesday, July 16.

All figures exclude cargoes identified as Kazakhstan's KEBCO grade. Those are shipments made by KazTransoil JSC that transit Russia for export through Novorossiysk and Ust-Luga and are not subject to European Union sanctions or a price cap. The Kazakh barrels are blended with crude of Russian origin to create a uniform export stream. Since Russia's invasion of Ukraine, Kazakhstan has rebranded its cargoes to distinguish them from those shipped by Russian companies.

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Vessel-tracking data are cross-checked against port agent reports as well as flows and ship movements reported by other information providers including Kpler and Vortexa Ltd.

If you are reading this story on the Bloomberg terminal, click for a link to a PDF file of four-week average flows from Russia to key destinations.

--With assistance from Sherry Su.

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Oil Market Highlights

Crude Oil Price Movements

In June, the OPEC Reference Basket (ORB) declined slightly by 37ϕ , or 0.4%, m-o-m, to average \$83.22/b. The ICE Brent front-month contract was unchanged, m-o-m, at \$83.00/b, while the NYMEX WTI front-month contract slightly increased by 8ϕ , or 0.1%, m-o-m, to average \$78.70/b. The DME Oman front-month contract declined by \$1.05, m-o-m, or 1.3%, m-o-m, to settle at \$82.69/b. The front-month ICE Brent/NYMEX WTI spread narrowed in June by 8ϕ , m-o-m, to average \$4.30/b. The price structure of ICE Brent and NYMEX WTI strengthened. Money managers turned less bearish about oil, as selling pressure eased.

World Economy

The world economic growth forecast is revised up slightly to 2.9% for 2024, but remained unchanged at 2.9% for 2025. For the US, economic growth forecasts for both 2024 and 2025 remain unchanged at 2.2% and 1.9%, respectively. The economic growth forecast for the Eurozone is revised up slightly to stand at 0.7% for 2024, with 2025 unchanged at 1.2%. Japan's economic growth forecast remain unchanged at 0.3% and 0.9% for 2024 and 2025, respectively. China's 2024 economic growth forecast is revised up slightly to 4.9%, while the 2025 forecast remains at 4.6%. India's economic growth forecast is unchanged for both 2024 and 2025, at 6.6% and 6.3%, respectively. Brazil's economic growth forecast is unchanged at 1.8% for 2024 and 1.9% for 2025. Russia's economic growth forecasts for 2024 and 2025 are revised up slightly to 3.1% and 1.5%, respectively.

World Oil Demand

The 2024 global oil demand growth forecast remains at 2.2 mb/d, unchanged from last month's assessment. The OECD oil demand in 2024 is expected to expand by around 0.2 mb/d, while the non-OECD is forecast to grow by around 2.1 mb/d. In 2025, global oil demand is expected to see robust growth of 1.8 mb/d, y-o-y, also unchanged from the previous month's assessment. The OECD oil demand is expected to grow by 0.1 mb/d, y-o-y, while the non-OECD demand is forecast to expand by 1.7 mb/d.

World Oil Supply

Non-Declaration of Cooperation (DoC) liquids supply (i.e., liquids supply from countries not participating in the DoC) is expected to grow by 1.2 mb/d in 2024, unchanged from the previous month's assessment. The main growth drivers are expected to be the US, Canada and Brazil. In 2025, non-DoC liquids supply growth is forecast at 1.1 mb/d, also unchanged from the previous month's assessment. The growth is anticipated to be mainly driven by the US, Brazil, Canada and Norway. Separately, DoC natural gas liquids (NGLs) and non-conventional liquids are forecast to grow by about 0.1 mb/d to average 8.3 mb/d in 2024, followed by an increase of about 25 tb/d, reaching 8.4 mb/d in 2025. Crude oil production by the countries participating in the DoC dropped by 125 tb/d in June compared to the previous month, averaging about 40.80 mb/d, as reported by available secondary sources.

Product Markets and Refining Operations

In June, refinery margins continued to retract in the Atlantic basin. This marked the fourth consecutive monthly decline as refiners increased product output, with gasoline leading the losses due to ample availability. This was despite a robust gasoil crack spread performance in the USGC. In contrast, margins in Singapore reversed direction, with gains driven by middle distillates, naphtha and high sulphur fuel oil. The upturn in Southeast Asia reflected the increase in planned and unplanned maintenance within the region.

Tanker Market

Dirty spot freight rates showed mixed movements across classes. The VLCC spot freight rates declined, amid lower flows from the Middle East. The Middle East-to-East route freight rates fell by 25%, m-o-m, while the West Africa-to-East route fell by 19%. Meanwhile, Suezmax freight rates rose on monitored routes, with a m-o-m gain of 10% on the USGC to Europe route, amid higher flows out of Houston. Aframax freight rates declined around the Mediterranean, with the intra-Med route down 18%, while the Indonesia-to-East route strengthened by 5%, amid higher flows to Thailand and Malaysia. In the clean tanker market, freight rates were broadly flat East of Suez, while West of Suez rates fell 23%, amid still sluggish product demand in Europe and soft economics for flows to North America.

Crude and Refined Product Trade

In June, US crude imports surged for the third consecutive month to average 7.3 mb/d, according to preliminary data, representing a more than five-year high. For the first time in seven months, US crude exports fell below 4 mb/d, averaging 3.8 mb/d. US product exports jumped by 6%, m-o-m, to average 6.8 mb/d, the second highest on record, amid higher flows to Asia, Latin America and Europe. The latest data for China shows crude imports averaged 11.1 mb/d in May, a m-o-m increase but some 9% lower compared to the same month last year. China's product imports fell from high levels seen in the previous month to average 2.4 mb/d, as independent refiners reduced inflows of refinery feedstocks. India's crude imports in May declined from a two-year high to average 5.1 mb/d, as product consumption was elevated by the election activities. India's product imports tapered slightly to average 1.1 mb/d, amid lower inflows of fuel oil. Japan's crude imports fell to a 34-month low of 2.1 mb/d in May as the weaker yen slowed buying, amid muted demand. Japan's product exports also declined m-o-m, driven by lower outflows of gasoil and fuel oil. Preliminary estimates indicate OECD Europe crude imports fell m-o-m in May, amid refinery maintenance and lacklustre product demand in the region. Product imports into the OECD region were seen to decline in May due to lower inflows of jet fuel and diesel.

Commercial Stock Movements

Preliminary May 2024 data shows a build in total OECD commercial oil stocks by about 24.7 mb, m-o-m, reaching 2,813 mb. This is about 142 mb below the 2015–2019 average. Within the components, crude stocks fell by 5.4 mb, while product stocks rose by 30.1 mb, m-o-m. OECD commercial crude stocks stood at 1,366 mb in May. This is 120 mb less than the 2015-2019 average. OECD total product stocks stood at 1,447 mb in May. This is 23 mb below the 2015–2019 average. In terms of days of forward cover, OECD commercial oil stocks increased in May by 0.3 days, m-o-m, to stand at 60.6 days. This is 1.4 days less than the 2015-2019 average.

Balance of Supply and Demand

Demand for DoC crude (i.e., crude from countries participating in the DoC) in 2024 is revised down slightly by 0.1 mb/d from the previous month's assessment to stand at 43.1 mb/d, which is around 0.9 mb/d higher than the estimate for 2023. This revision is mainly due to higher supply historical data. Demand for DoC crude in 2025 is revised down by 0.1 mb/d from the previous month's assessment to stand at 43.9 mb/d, which is around 0.7 mb/d higher than the estimate for 2024. Again, this revision is due to higher supply historical data.

Feature Article

Monetary policies impact on oil market

In the key advanced economies, the consumer price Graph 1: CPI in selected key economies index (CPI) has signalled an easing of inflation. In the US, it declined to 3.3% in May but remains above the US Fed's target level of 2%. Similarly, in the Eurozone, the CPI dropped to 2.5% in June. However, CPI levels in key developing countries have shown diverging trends, as can be seen in China, with inflation currently at 0.3% in May while in India the CPI dropped to 4.7% in May (*Graph 1*).

With this, and amid persistent inflationary pressures. the anticipated shifts towards monetary policy easing have been somewhat cautious. The European Central Bank (ECB) recently cut its three key interest rates by 25 basis points, but the US Federal Reserve (Fed) and the Bank of England (BOE) have

% change y-o-y 12 10 -2 May May Jul Nov May May Mar May May Jan May May May China Eurozone Sources: BLS, CNBS, Eurostat, MOPSI and Haver Analytics.

opted to keep policy rates unchanged at their most recent meetings (Graph 2).

The divergences in monetary policies are influenced Graph 2: Key policy rates in selected key economies not only by inflation expectations but also by a wide range of factors, including variations in inflation subcomponents, currency vulnerabilities. government debt, differences in business cycles, and the effects of geo-economic developments. Notably, the US Fed's policy decisions tend to have the most direct impact as trade is primarily dollardenominated.

The Fed's current cautious approach presents a key challenge for the global oil market on two major fronts: the oil supply side and the strength of the US dollar (USD). On the supply side, the current highinterest rate environment increases the cost of capital, especially in the US market. This comes

7 6 5 4 3 0 -1

-China

—India

Sources: ECB, FRB, PBoC, RBI and Haver Analytics.

—Eurozone

at a time when capital discipline mandates and shareholder activism are already limiting investment in exploration and production. On the USD front, maintaining interest rates at current levels supports the strength of the USD, resulting in higher commodity prices. The Fed's stance to defer a rate cut could potentially constrain the abilities of other major economies to reduce their policy rates further, thus subjecting their economies to inflationary pressures as they aim to avoid weakening their currencies relative to the USD.

-US

Despite the aforementioned challenges, the global economy remains resilient. The downward trend in global inflationary pressures observed during much of 1H24 is expected to continue into 2H24. The growth seen in the US economy at 1.3% in 1Q24 is a major factor supporting potential rate cuts by the US Fed in the latter half of the year.

Overall, global economic growth for 2024 is forecast at 2.9%. This growth is expected to support a healthy oil demand environment, with demand projected to grow by 2.2 mb/d, y-o-y, to an average of 104.5 mb/d in 2024, up from 102.2 mb/d seen in 2023. On the supply side, the non-DoC liquids production is forecast to grow by 1.2 mb/d, y-o-y, averaging 53.0 mb/d in 2024, compared to 51.7 mb/d seen in 2023.

World Oil Demand

The global oil demand growth forecast for 2024 remained unchanged from last month's assessment at 2.2 mb/d. There were some downward adjustments for 1Q24 due to actual data from both the OECD region but this was offset by a better-than-expected performance in the same quarter in some non-OECD countries.

Accordingly, the OECD is projected to expand by around 0.2 mb/d in 2024, with OECD Americas leading oil demand growth, while OECD Europe and OECD Asia Pacific are expected to show marginal declines, y-o-y.

Expected strong mobility and air travel in the Northern Hemisphere during the summer driving/holiday season is anticipated to bolster demand for transportation fuels and drive growth in the US. In addition, expected improvements in manufacturing and petrochemical activities are expected to support the demand for LPG/NGL, lending additional support to oil demand in the country. Oil demand in Europe and the Asia Pacific region is also expected to pick up somewhat between 2Q24 and 4Q24, amid stronger mobility and improving economic development.

In the non-OECD, oil demand is forecast to expand by around 2.1 mb/d, y-o-y, driven mostly by China as well as Other Asia, the Middle East, India, and Latin America. Total world oil demand is anticipated to reach 104.5 mb/d in 2024, bolstered by strong demand for air travel and healthy road mobility, including trucking. Support is also expected from industrial, construction and agricultural activities in non-OECD countries. Similarly, petrochemical capacity additions in non-OECD countries – mostly in China and the Middle East – are expected to contribute to oil demand growth.

The current positive momentum for oil demand in 1Q24 in the non-OECD region, supported by robust economic activity and healthy mobility and air travel, is expected to continue for the rest of the year. This growth is mostly supported by demand for distillates and transportation fuels in China, the Middle East, India, and Other Asia. However, this forecast is subject to some uncertainty, including global economic developments in key economies of the region.

In 2025, global oil demand is forecast to show robust growth of 1.8 mb/d, y-o-y, unchanged from the previous month's assessment. The OECD is expected to grow by 0.1 mb/d, y-o-y, while demand in the non-OECD is forecast to expand by a healthy 1.7 mb/d.

Table 4 - 1: World oil demand in 2024*, mb/d

Table 1 11 World on domain		,					Change 202	Change 2024/23	
World oil demand	2023	1Q24	2Q24	3Q24	4Q24	2024	Growth	%	
Americas	24.96	24.47	25.31	25.51	25.37	25.17	0.21	0.85	
of which US	20.36	19.92	20.67	20.67	20.85	20.53	0.17	0.81	
Europe	13.45	13.00	13.61	13.73	13.40	13.44	-0.01	-0.08	
Asia Pacific	7.25	7.62	6.90	7.01	7.41	7.23	-0.01	-0.18	
Total OECD	45.65	45.09	45.81	46.26	46.18	45.84	0.19	0.41	
China	16.36	16.76	16.93	17.33	17.43	17.12	0.76	4.64	
India	5.34	5.66	5.66	5.40	5.59	5.58	0.23	4.36	
Other Asia	9.28	9.73	9.77	9.49	9.51	9.62	0.35	3.74	
Latin America	6.69	6.75	6.88	6.97	6.88	6.87	0.18	2.69	
Middle East	8.63	8.76	8.56	9.23	9.00	8.89	0.26	2.96	
Africa	4.46	4.68	4.35	4.39	4.82	4.56	0.10	2.28	
Russia	3.84	3.94	3.80	3.99	4.08	3.95	0.11	2.90	
Other Eurasia	1.17	1.32	1.24	1.08	1.28	1.23	0.06	4.78	
Other Europe	0.78	0.82	0.78	0.77	0.84	0.80	0.02	2.07	
Total Non-OECD	56.56	58.41	57.98	58.64	59.44	58.62	2.06	3.64	
Total World	102.21	103.50	103.79	104.90	105.62	104.46	2.25	2.20	
Previous Estimate	102.21	103.51	103.80	104.90	105.60	104.46	2.25	2.20	
Revision	0.00	-0.01	0.00	0.00	0.01	0.00	0.00	0.00	

Note: * 2024 = Forecast. Totals may not add up due to independent rounding.

Table 4 - 2: World oil demand in 2025*, mb/d

Table 4 - 2. World on demand		,					Change 202	Change 2025/24	
World oil demand	2024	1Q25	2Q25	3Q25	4Q25	2025	Growth	%	
Americas	25.17	24.53	25.36	25.63	25.45	25.25	0.08	0.31	
of which US	20.53	19.95	20.70	20.73	20.89	20.57	0.04	0.21	
Europe	13.44	13.02	13.62	13.75	13.42	13.45	0.02	0.12	
Asia Pacific	7.23	7.63	6.91	7.02	7.42	7.24	0.01	0.15	
Total OECD	45.84	45.18	45.88	46.41	46.28	45.94	0.11	0.23	
China	17.12	17.19	17.31	17.77	17.82	17.53	0.41	2.40	
India	5.58	5.88	5.90	5.61	5.82	5.80	0.23	4.09	
Other Asia	9.62	10.02	10.10	9.82	9.81	9.93	0.31	3.23	
Latin America	6.87	6.95	7.07	7.19	7.07	7.07	0.20	2.91	
Middle East	8.89	9.14	8.90	9.69	9.35	9.27	0.38	4.30	
Africa	4.56	4.79	4.45	4.52	4.93	4.67	0.11	2.47	
Russia	3.95	4.00	3.85	4.05	4.12	4.01	0.05	1.36	
Other Eurasia	1.23	1.35	1.27	1.12	1.31	1.26	0.03	2.57	
Other Europe	0.80	0.83	0.79	0.78	0.85	0.81	0.01	1.40	
Total Non-OECD	58.62	60.14	59.65	60.55	61.09	60.36	1.74	2.97	
Total World	104.46	105.33	105.53	106.96	107.37	106.31	1.85	1.77	
Previous Estimate	104.46	105.33	105.53	106.96	107.36	106.31	1.85	1.77	
Revision	0.00	-0.01	0.00	0.00	0.01	0.00	0.00	0.00	

Note: * 2025 = Forecast. Totals may not add up due to independent rounding.

Source: OPEC.

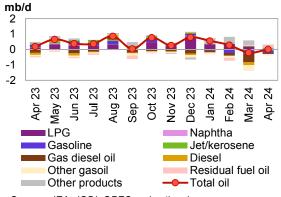
OECD

OECD Americas

Update on the latest developments

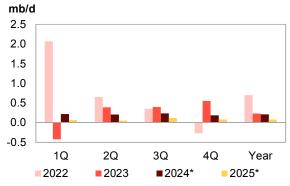
In April, oil demand in OECD Americas was broadly flat, albeit showing improvement from a contraction of 203 tb/d, y-o-y, in the previous month. The improvement in monthly demand can be largely attributed to residual fuels and jet/kerosene requirements in the US, with Chile being the only country in the region to show overall y-o-y growth in April.

Graph 4 - 1: OECD Americas' oil demand by main petroleum product category, y-o-y change



Sources: IEA, JODI, OPEC and national sources.

Graph 4 - 2: OECD Americas' oil demand, y-o-y change



Note: * 2024-2025 = Forecast.

Source: OPEC.

US

US oil demand in April declined marginally by 29 tb/d, y-o-y, which represents a significant improvement from the decline of 206 tb/d, y-o-y, seen in March. The largest contraction was recorded in gasoline, which decreased by 165 tb/d, y-o-y, down from a decline of 120 tb/d, y-o-y, in the previous month. However, according to a report from the US Department of Transportation, seasonally adjusted vehicle miles travelled in April increased by 1.4%, y-o-y. Despite this, gasoline demand remained weak, partly due to changes in technology and vehicle efficiency improvements. Diesel contracted by 99 tb/d, y-o-y, albeit showing a

significant improvement from the 429 tb/d y-o-y decline seen in the previous month. Diesel has been on a declining trend since September 2023, due to weak manufacturing activity and lacklustre trucking activity. According to a report from the American Trucking Association (ATA), the Truck Tonnage Index declined by 1.2% in April after decreasing by 2.2% in March. Furthermore, a report from the Federal Reserve Board/Haver Analytics shows that the index of industrial production in the US has been weak since 2023. In April, the seasonally adjusted index for industrial production fell by 0.77%, compared to a 0.30% annual decline recorded in March. In terms of petrochemical feedstock, naphtha declined by 43 tb/d, y-o-y, and demand for LPG was broadly flat from an increase of 288 tb/d, y-o-y seen in the previous month.

Table 4 - 3: US oil demand, mb/d

Table 1 Cl CC Cli acinana, ilibia				
US oil demand			Change	Apr 24/Apr 23
By product	Apr 23	Apr 24	Growth	%
LPG	3.33	3.33	0.00	-0.1
Naphtha	0.16	0.11	-0.04	-27.6
Gasoline	9.00	8.83	-0.17	-1.8
Jet/kerosene	1.63	1.72	0.10	5.9
Diesel	3.90	3.80	-0.10	-2.5
Fuel oil	0.18	0.31	0.14	77.8
Other products	2.14	2.19	0.05	2.3
Total	20.33	20.30	-0.03	-0.1

Note: Totals may not add up due to independent rounding.

Sources: EIA and OPEC.

On a positive note, residual fuels surged by 137 tb/d, y-o-y, in April, up from growth of 66 tb/d, y-o-y, seen in the previous month. Due to healthy air travel activity, jet/kerosene expanded by 96 tb/d, y-o-y, showing a further increase from the 50 tb/d y-o-y growth observed in March. According to a report from the International Air Travel Association (IATA), US domestic passenger traffic increased by 3.2% in April, marginally down from the 4.8% y-o-y increase seen in the previous month. International Revenue Passenger-Kilometres (RPK) increased by 6.5%, y-o-y, though this was lower than the 14.6% growth seen in March. At the same time, demand for the 'other products' category increased by 50 tb/d, y-o-y, marking an improvement from the annual decline of 63 tb/d, y-o-y, observed in the previous month.

Near-term expectations

The current economic dynamics, including strong private household consumption, are expected to continue into 2H24. Furthermore, the number of travellers that flew during this year's Memorial Day weekend was reported to have been the highest in nearly 20 years. The summer driving season is also now underway, and the number of US travellers expected to drive more than 50 miles from home between the Memorial Day and Labor Day weekends is around 76% of US citizens. This is 1.8% higher than in 2023, according to the American Automobile Association. In addition, the US PPI unexpectedly fell in May by 0.2%, m-o-m, indicating that US inflationary pressure is easing. As a result, expectations for interest rate cuts may also increase. These factors are expected to bolster transportation fuel demand, including gasoline and jet/kerosene in 3Q24. According to US weekly data, gasoline demand in the US has been steadily rising since Memorial Day weekend and a further increase is anticipated as a record 71 million Americans are expected to have travelled during the holiday on 4 July. In addition, with the US presidential election looming, the current administration remains focused on keeping gasoline prices in check, which should support gasoline demand in the US in the near term

Furthermore, ongoing firm petrochemical feedstock requirements for ethylene are also expected to boost LPG demand. However, lacklustre manufacturing activity amid high interest rates is anticipated to weigh on demand for diesel. Thus, US oil demand is forecast to increase by an average of about 180 tb/d, y-o-y, in 2H24, mostly supported by demand for jet/kerosene, gasoline and LPG. Overall, US oil demand in 2024 is forecast to increase by 166 tb/d, y-o-y, to average 20.53 mb/d, mostly supported by transportation fuels and light distillates.

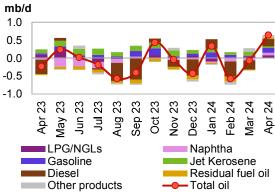
In 2025, US transportation activity is forecast to remain solid, supporting transportation fuel demand and driving overall oil demand growth in the country. Additionally, healthy demand for LPG from petrochemical requirements is expected to continue. At the same time, demand for diesel and naphtha is likely to remain subdued, as manufacturing activity has yet to exhibit evidence of a rebound. In 2025, US oil demand is projected to increase by 42 tb/d, y-o-y, to average 20.57 mb/d.

OECD Europe

Update on the latest developments

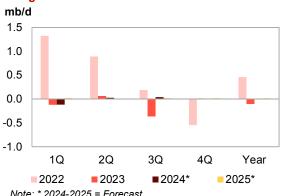
Oil demand in OECD Europe surged by 648 tb/d, y-o-y, in April, rebounding from the decline of 64 tb/d, y-o-y, seen in the previous month. This oil demand growth was supported by requirements from Germany, France, and Italy amid a very low baseline. In terms of petroleum products, the largest increase was seen in demand for diesel and gasoline.

Graph 4 - 3: OECD Europe's oil demand by main petroleum product category, y-o-y change



Sources: IEA, JODI, OPEC and national sources.

Graph 4 - 4: OECD Europe's oil demand, y-o-y change



Note: * 2024-2025 = Forecast. Source: OPEC.

In terms of products, diesel demand increased by 206 tb/d, y-o-y, in April, up from the 260 tb/d, y-o-y, decline seen in the previous month. Diesel demand growth numbers were affected by a very weak baseline comparison. Gasoline demand surged by 135 tb/d, y-o-y, up from a slight growth of 14 tb/d, y-o-y, seen in the previous month. This came on the back of steady driving mobility amid a rise in vehicle sales in the region. Gasoline demand has been growing, y-o-y, and has surpassed pre-pandemic levels. The consumption of gasoline in the region was also supported by a shift from diesel vehicles to gasoline-powered vehicles, combined with greater commuting to work and higher vehicle miles travelled. Meanwhile, as air traffic recovery continued to strengthen in April, jet/kerosene increased by 47 tb/d, y-o-y, albeit this was below the growth of 114 tb/d, y-o-y, seen in March. A report from the IATA's Air Passenger Market Analysis states that Europe's international RPKs grew in April by 10.1%, y-o-y, and 11.7% y-t-d. Nevertheless, demand for jet/kerosene in the region still has not yet reached pre-pandemic levels.

In terms of petrochemical products, LPG expanded by 81 tb/d, y-o-y, in April, up from the growth of 55 tb/d, y-o-y, seen in the previous month. Naphtha increased by 66 tb/d, y-o-y, up from an annual decline of 61 tb/d seen in March. While residual fuels grew by 39 tb/d, y-o-y, up from a decline of 20 tb/d, y-o-y, in March, the 'other products' category expanded by 74 tb/d, y-o-y, slightly down from an increase of 94 tb/d, y-o-y, seen in the previous month.

Near-term expectations

In the near term, with real income in the EU showing an increase, the GDP of the region is expected to continue on a positive trajectory in 2H24. Furthermore, signs of economic stimulus, including the European Central Bank's announcement of its first interest rate cut in five years, are expected to provide some upside. These factors, combined with a gradual recovery in the industrial sector alongside ongoing expansion in the services sector, are anticipated to lend additional support to GDP growth, particularly in the second and third quarters of 2024. Moreover, a seasonal increase in driving mobility and air travel activity will materialize during the summer driving/holiday season, particularly in 3Q24. Additionally, Europe is hosting two major sporting events in 3Q24, with the European football championship in Germany and the Olympic Games in France expected to boost travel and tourism demand in the region.

Currently, European air traffic is only around 3% below 2019 levels and is showing an exceptional improvement amid the recovery in long-haul flights to the Americas and Asia-Pacific. Intra-European flights are also rebounding. These factors are expected to contribute positively to transportation fuel consumption, driving regional oil demand. Furthermore, anticipated gradual economic recovery and projected manufacturing expansions in late 2024, coupled with seasonal consumption from agricultural and construction companies, are expected to boost demand for diesel. Oil demand growth in the region is expected to see a moderate increase of 23 tb/d, y-o-y, in 2H24.

Petrochemical activity is also expected to show some improvement, and support naphtha demand, albeit at low levels. LPG and residual fuels are also expected to record a slight uptick. Overall, however, given the slow start to the year, the region is set to see a marginal decline of 11 tb/d, y-o-y, in 2024, for an average of 13.44 mb/d.

Potential improvements towards the end of 2024 are expected to continue into 2025, with anticipated positive GDP growth in the region. OECD Europe oil demand growth is forecast at 17 tb/d, y-o-y, driven by air travel and driving activity. An increase in vehicle fuel efficiency and penetration of electric vehicles – subject to environmental regulations within the various countries of the region – may have an impact on gasoline and diesel demand. Similarly, the European petrochemical feedstock market is poised for major changes in fundamentals, mostly due to environmental regulations and high production costs, which could weigh on demand going forward. Overall, the region is projected to consume an average of 13.45 mb/d in 2025.

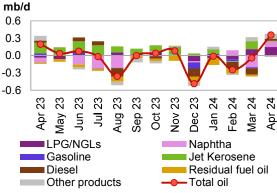
OECD Asia Pacific

Update on the latest developments

Oil demand in OECD Asia Pacific surged in April by 357 tb/d, y-o-y, up from a contraction of 42 tb/d, y-o-y, seen in March. The increase in demand was driven by requirements from South Korea and Australia.

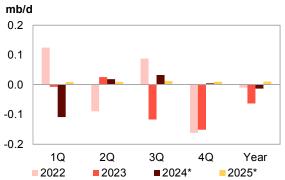
In terms of petroleum products, the largest increase stemmed from petrochemical sector requirements for feedstocks. While LPG expanded by 148 tb/d, y-o-y, in April, up from 111 tb/d, y-o-y, growth seen in the previous month, naphtha increased by 98 tb/d, y-o-y, up from a decline of 202 tb/d, y-o-y, seen in March. The 'other products' category increased by 83 tb/d, y-o-y, up from growth in the previous month of 69 tb/d, y-o-y. Diesel grew by 35 tb/d, y-o-y, in April, an improvement from the large decline of 113 tb/d, y-o-y, seen in the previous month. Jet/kerosene saw an uptick of 10 tb/d, y-o-y, below the 139 tb/d, y-o-y, increase seen in March. A report from IATA's Air Passenger Market Analysis states that air travel in the region continues to rise at a rapid pace, with international RPKs recording a 32.1% increase, y-o-y, in April, albeit showing a lesser increase from the 38.2%, y-o-y, seen in March. Within the region, Japan's domestic RPKs declined by 0.1%, y-o-y. This dip aligns with historical seasonal patterns, as demand tends to wane in April due to the end of the fiscal year and the start of school holidays in spring.

Graph 4 - 5: OECD Asia Pacific oil demand by main petroleum product category, y-o-y change



Sources: IEA, JODI, METI and OPEC.

Graph 4 - 6: OECD Asia Pacific oil demand, y-o-y change



Note: * 2024-2025 = Forecast.

Source: OPEC.

Gasoline consumption in OECD Asia Pacific contracted by 12 tb/d, y-o-y, in April, albeit marking a marginal improvement from the decline of 16 tb/d, y-o-y, seen in the previous month. Residual fuels saw a minor decline of 5 tb/d, y-o-y, albeit also marking an improvement from the decline of 30 tb/d, y-o-y, seen in March.

Near-term expectations

Following a slight rebound in Japan's economic activity in 1Q24, consumer confidence remained sound amid rising activity related to tourism. Increasing visitor numbers and higher per capita spending driven by the yen's weakness are providing support to Japan's economy. Moreover, the services sector PMI, constituting around two-thirds of the Japanese economy, indicated ongoing sound developments in the services sector. Meanwhile, South Korea has decided to extend a tax cut for auto fuels, diesel, gasoline and butane through the end of August.

Furthermore, a steady recovery in air traffic, along with improvements in driving activity during the summer season, are expected to support gasoline and jet/kerosene consumption in the region. In Japan, jet fuel demand is expected to increase due to an ongoing recovery in air travel and government measures aimed at ameliorating a fuel shortage. Oil demand in the OECD Asia Pacific region is projected to increase in 2H24 by an average of nearly 20 tb/d, y-o-y. However, diesel and petrochemical feedstock could experience downward pressure due to looming economic challenges and poor olefin margins. Given the weak start of the year, overall, in 2024, oil demand in OECD Asia Pacific is forecast to marginally decline by 13 tb/d, y-o-y. The region is forecast to consume an average of 7.23 mb/d.

In 2025, expected gradual improvements in economic activity in the last guarter of 2024 are expected to support the service sector of the region. In addition, transportation and petrochemical sector requirements are expected to continue supporting OECD Asia Pacific oil demand, which is forecast to grow marginally by 11 tb/d, y-o-y, for an average of 7.24 mb/d.

Non-OECD

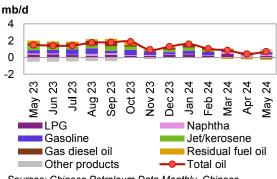
China

Update on the latest developments

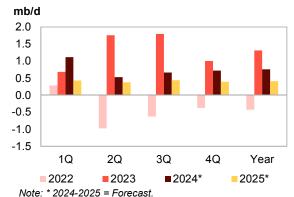
China's oil demand in May surged by about 700 tb/d, y-o-y, up further from considerable growth of 418 tb/d, y-o-y, seen in the previous month. Demand was driven by strong petrochemical feedstock requirements and healthy demand in the transportation sector.

Rising petrochemical feedstock requirements resulted in LPG expanding by 208 tb/d, y-o-y, up from an annual increase of 46 tb/d in the previous month. Similarly, demand for naphtha grew by 130 tb/d, y-o-y, which was slightly below the strong growth of 200 tb/d, y-o-y, seen in the previous month. China's LPG demand, including PDH demand for propane, was supported by capacity expansion. Three PDH projects with a combined capacity of 2.13 million metric tonnes per annum have now started operations in China.

Graph 4 - 7: China's oil demand by main petroleum Graph 4 - 8: China's oil demand, y-o-y change product category, y-o-y change



Sources: Chinese Petroleum Data Monthly, Chinese National Bureau of Statistics, JODI, Non-OECD Energy Statistics, Argus Global Markets, Argus China, and OPEC.



Source: OPEC.

In May, gasoline expanded by 250 tb/d, y-o-y, up from 165 tb/d, y-o-y, growth the month before and in line with strong seasonal demand trends. The relative m-o-m increase in gasoline growth was consistent with a rise in driving mobility. Data from China's National Bureau of Statistics/Haver Analytics indicates that seasonally adjusted passenger traffic (per 100 million person-kilometres) rose by a considerable 72.79%, y-o-y, in May. This compared to an increase of 68.07%, y-o-y, in April. Jet/kerosene expanded by 74 tb/d, y-o-y, supported by a surge in air travel during the Dragon Boat Festival holidays. A report from China's Civil Aviation Administration shows that domestic and international air travel turnover increased by 8.2% and 66.0%, y-o-y, in May 2024, with domestic flight counts exceeding levels from 2019 and 2023.

The 'other products' category, which includes bitumen, surged by 311 tb/d, y-o-y, in May, following an increase of 125 tb/d, y-o-y, in April. This growth in demand was mostly supported by a weak baseline effect. However, diesel once again underperformed with a y-o-y decline of 150 tb/d, while residual fuels saw a decline of 126 tb/d, y-o-y. Diesel was affected by several factors, including the rainy season in the south and extreme heat in the north of the country, which curbed construction activity amid a lacklustre property sector. A report from China's National Bureau of Statistics (NBS) indicates that investment in the real estate sector from January to May fell by 10.1% compared with the previous year. China's industrial production in May was 1.1%,

y-o-y, below April's y-o-y growth. In addition, drought conditions in central provinces have affected planting and reduced diesel demand for agricultural machinery.

Table 4 - 4: China's oil demand*, mb/d

China's oil demand			Change	May 24/May 23
By product	May 23	May 24	Growth	%
LPG	2.77	2.98	0.21	7.5
Naphtha	1.59	1.72	0.13	8.2
Gasoline	3.65	3.90	0.25	6.9
Jet/kerosene	1.08	1.15	0.07	6.9
Diesel	3.73	3.58	-0.15	-4.0
Fuel oil	0.96	0.84	-0.13	-13.1
Other products	2.92	3.23	0.31	10.6
Total	16.69	17.39	0.70	4.2

Note: * Apparent oil demand. Totals may not add up due to independent rounding.

Sources: Argus Global Markets, China OGP (Xinhua News Agency), Facts Global Energy, JODI, National Bureau of Statistics China and OPEC.

Near-term expectations

Looking ahead, on the back of an expected brighter macroeconomic environment in the near term, the travel sector is expected to remain healthy. Petrochemical feedstock demand is also expected to remain strong, supporting oil demand in China in 2H24. Moreover, jet/kerosene and gasoline are expected to lead oil demand growth amid ongoing air travel recovery and healthy road mobility. The considerable new capacity additions will require extra LPG, ethane and naphtha for use as feedstock, which is expected to strengthen feedstock demand. Accordingly, in 2024, China's oil product demand is expected to expand by around 0.8 mb/d, y-o-y. The industrial sector and manufacturing activity are expected to gain support from the government's policy to support manufacturing and high-tech industries. Moreover, robust global demand for finished goods for exports is expected at the end of the year, feeding into demand for petrochemical products. Overall, oil demand is forecast to average 17.12 mb/d. However, ongoing headwinds in the real estate sector are anticipated to continue to weigh on diesel demand.

In 2025, steady economic growth and healthy travel activity are expected to continue to support oil demand. China is expected to remain the global leader in oil demand growth, increasing by around 0.4 mb/d, y-o-y, to reach an average of 17.5 mb/d. China is also projected to lead global petrochemical feedstock demand growth, while jet fuel demand is forecast to rise due to an increase in air transportation requirements.

India

Update on the latest developments

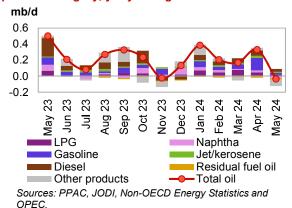
In May, India's oil demand declined by a slight 33 tb/d, y-o-y, following strong growth of 333 tb/d, y-o-y, seen in April. These soft demand numbers were affected by a strong baseline effect.

Specifically, the data shows relatively weak demand for the 'other products' category, which includes bitumen. The latter contracted by 81 tb/d, y-o-y, down from an increase of 34 tb/d, y-o-y, seen in April. Bitumen, which constitutes over 90% of the 'other products' category, was subdued by a slowdown in construction activity during the election period and cyclone activity in eastern India.

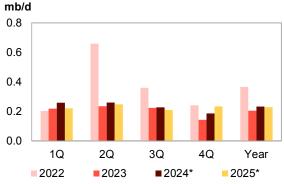
Naphtha demand also decreased by 27 tb/d, y-o-y, down from the 25 tb/d, y-o-y, increase seen in the previous month. Residual fuels contracted by 15 tb/d, y-o-y, albeit seeing an improvement from the 20 tb/d, y-o-y, decline observed in the previous month. Demand for residual fuel requirements was affected by a decline in their use in the industrial sector in some parts of India due to the banning of fuel oil use in various parts of the country.

On a positive note, demand for transportation fuels and LPG was relatively firm. Gasoline grew by 23 tb/d, y-o-y, down from an increase of 156 tb/d, y-o-y, seen in the previous month. The relative m-o-m decline in May, compared with the previous month, can be attributed to an easing of travel activities after healthy mobility during the general election campaign. A report from the Ministry of Road Transport & Highways/Haver Analytics shows that gasoline motor vehicle registrations increased by only 1.36%, y-o-y, in May, compared to a hike of 24.71%, y-o-y, in April. This is consistent with a report from the Federation of Automobile Dealers Associations (FADA) Society of India, which reported tepid sales for the month. Cumulative sales in May increased by just 2.61%, y-o-y, and were down by 5.28%, m-o-m. Adverse weather conditions contributed to the slowdown.

Graph 4 – 9: India's oil demand by main petroleum product category, y-o-y change



Graph 4 – 10: India's oil demand, y-o-y change



Note: * 2024-2025 = Forecast.

Source: OPEC.

Demand for diesel increased by 35 tb/d, y-o-y, slightly below the 64 tb/d, y-o-y growth seen in the previous month. Diesel was supported by agricultural sector requirements and an increase in its usage in industrial and mining activities across various parts of India.

In terms of petrochemical feedstock, LPG saw an uptick of 17 tb/d, y-o-y, down from the 46 tb/d increase, y-o-y, seen in April. LPG consumption during the year has been largely driven by household demand, which makes up 88.4% of total LPG requirements. Jet/kerosene increased by 15 tb/d, y-o-y, which was slightly below the 27 tb/d increase, y-o-y, seen in the previous month. The m-o-m decline in jet/kerosene demand during May was due to Cyclone Remal in India, which caused major flight disruptions and airport closures, resulting in a 5% decrease in flight counts since 25 May 2024.

Table 4 - 5: India's oil demand, mb/d

India's oil demand			Change	May 24/May 23
By product	May 23	May 24	Growth	%
LPG	0.88	0.90	0.02	1.9
Naphtha	0.33	0.31	-0.03	-8.1
Gasoline	0.92	0.94	0.02	2.5
Jet/kerosene	0.18	0.20	0.02	8.3
Diesel	1.99	2.03	0.04	1.8
Fuel oil	0.13	0.11	-0.02	-11.7
Other products	1.09	1.01	-0.08	-7.4
Total	5.53	5.49	-0.03	-0.6

Note: Totals may not add up due to independent rounding.

Sources: JODI, Petroleum Planning and Analysis Cell of India and OPEC.

Near-term expectations

In the near term, India's current robust economic expansion, coupled with a positive outlook for the manufacturing sector, is expected to bolster ongoing demand for oil products. This is expected to drive growth of 0.2 mb/d, y-o-y, on average in 2H24. Moreover, government initiatives aimed at supporting manufacturing and household consumption are expected to underpin demand for LPG, ethane and diesel.

At the same time, India's jet fuel demand may also surge as the government adds more airport terminals amid an ongoing recovery in air travel. Jet fuel demand is expected to outperform all other transport fuels, leading to oil demand growth in the 2024 fiscal year. According to CAPA India, this surge in demand is expected to come from the addition of 84 aircraft by Indian carriers this year. Domestic passenger traffic is projected to reach 164 million in the 2024 fiscal year, up from approximately 154 million in the previous year. International traffic could rise to 78 million from 69.7 million last year.

Overall, these factors are expected to bolster India's oil demand. Additionally, the country's annual traditional festivities are set to support transportation activity and boost gasoline demand. However, cyclone activity in eastern India and a forecast of above-average rainfall this monsoon season could weigh on agricultural and construction activities, thus in turn affecting oil demand in the third quarter. In 2024, India is expected to see healthy oil demand growth of 233 tb/d, y-o-y, for an average of 5.58 mb/d.

India's healthy economic momentum is expected to continue into 2025. Furthermore, manufacturing and business activities in India are expected to remain steady, supporting an increase in oil demand of 228 tb/d, y-o-y. Diesel is expected to continue being the main driver of demand, followed by the 'other products' category, in particular bitumen. Additionally, robust growth in transport fuels and growth in LPG and naphtha demand are expected to remain healthy and support oil demand during the year.

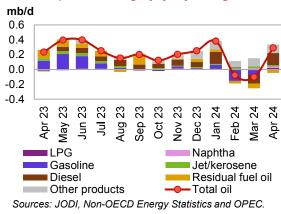
Latin America

Update on the latest developments

Oil demand in Latin America in April surged by 290 tb/d, y-o-y, amid a weaker baseline effect and a strong increase from Brazil that offset weakness from Argentina and Venezuela. Most of the increase in regional oil demand stemmed from diesel and the 'other products' category.

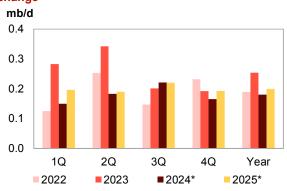
In terms of product demand, diesel requirements – primarily from Brazil – saw the largest growth, increasing by 165 tb/d, y-o-y, rebounding from the large decline of 121 tb/d, y-o-y, seen in the previous month. Diesel consumption was supported by increased agricultural activity at the beginning of the harvest season.

Graph 4 - 11: Latin America's oil demand by main petroleum product category, y-o-y change



in Argentina is also affecting both gasoline and gasohol consumption.

Graph 4 - 12: Latin America's oil demand, y-o-y change



Note: * 2024-2025 = Forecast. Source: OPEC.

The 'other products' category increased by 115 tb/d, y-o-y, up marginally from the 111 tb/d, y-o-y, increase seen in March. In terms of petrochemical feedstock, while LPG increased by 22 tb/d, y-o-y, up from the annual decline of 16 tb/d, y-o-y, seen in the previous month, naphtha grew by 19 tb/d, y-o-y, marginally up from growth of 17 tb/d, y-o-y, seen in the previous month. In terms of transportation fuels, jet kerosene expanded by 15 tb/d, y-o-y, but gasoline demand was flat, y-o-y, albeit improving from the 52 tb/d, y-o-y, decline observed in the previous month. In Brazil, gasoline was subdued by competition from ethanol as well as floods in Rio Grande do Sul that adversely affected mobility and overall gasoline consumption. In addition, the economic contraction

Jet/kerosene fuel demand was supported by ongoing air travel recovery in the region. A report from IATA's Air Passenger Market Analysis states that Latin American carriers saw a 14.5% increase, y-o-y, in international RPKs in April. At the same time, Brazil achieved a y-o-y growth of 6.5% in air travel. Residual fuels were broadly unchanged, y-o-y, contrasting with the 48 tb/d y-o-y contraction seen in the previous month.

Near-term expectations

Looking ahead to 2H24, there are expectations for buoyant economic activity in parts of the region, as inflationary pressures and interest rates ease in some markets. In Brazil, the largest oil-consuming country in the region, ongoing strong consumer spending – driven by rising real wages, lower inflation, and declining interest rates – is expected to be the main driver of growth. In addition, forward-looking indicators from Brazil indicate a positive trajectory regarding services and manufacturing activities.

The recovery in air travel is expected to continue, supporting further growth in jet fuel demand, particularly due to stronger seasonal demand. Demand from agriculture, manufacturing, and power generation is expected to support demand for distillates. Oil demand in the region is projected to show healthy growth of 193 tb/d, y-o-y, in 2H24. In 2024, oil demand is expected to expand by 180 tb/d, y-o-y, to average 6.87 mb/d. Specifically, transportation fuels – jet/kerosene, gasoline and diesel – are projected to drive overall oil demand growth.

In 2025, healthy economic activity amid an expected acceleration in Brazil's economy, which will likely stem from fiscal consolidation and the early benefits of tax reforms, is expected to support oil demand in the region.

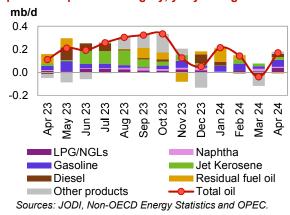
Both transportation and manufacturing activities are expected to support the average oil demand growth forecast at 200 tb/d, y-o-y, for an average of 7.07 mb/d. Transportation fuels, including gasoline, jet/kerosene and diesel, are anticipated to drive demand growth.

Middle East

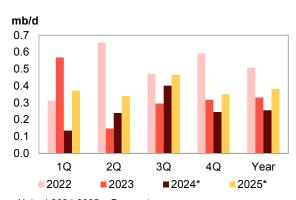
Update on the latest developments

Oil demand in the Middle East in April surged by 169 tb/d, y-o-y, up from a decline of 38 tb/d, y-o-y, seen in the previous month. The strong increase in oil demand was supported by transportation fuels and petrochemical feedstock requirements in major consuming countries across the region.

Graph 4 - 13: Middle East's oil demand by main petroleum product category, y-o-y change



Graph 4 - 14: Middle East's oil demand, y-o-y change



Note: * 2024-2025 = Forecast. Source: OPEC.

Looking at demand for specific products, transportation fuels exhibited an impressive performance in April. Gasoline demand increased by 61 tb/d, y-o-y, up from growth of 22 tb/d, y-o-y, seen in the previous month. Diesel expanded by 29 tb/d, y-o-y, up from the 20 tb/d y-o-y decline seen in the previous month. Jet/kerosene saw growth of 23 tb/d, y-o-y, the same growth level as seen in the previous month. The product was supported by healthy air travel in the region. In this regard, a report from IATA showed that international RPKs in the Middle East registered growth of 14.2%, y-o-y, in April, compared with growth of 10.8% y-o-y, observed in March.

The 'other products' category grew by 18 tb/d, y-o-y, rebounding from the decline of 89 tb/d, y-o-y, seen in the previous month. In terms of petrochemical feedstock, LPG expanded by 40 tb/d, y-o-y, compared with an 11 tb/d y-o-y increase, while naphtha saw an uptick of 8 tb/d, y-o-y, down from 22 tb/d y-o-y growth in the previous month.

Near-term expectations

In the near term, the regional oil demand outlook remains promising. Oil demand in the region is expected to see an increase of 323 tb/d, y-o-y, on average in 2H24, on contributions from Saudi Arabia and Iraq. Demand in the second half of 2024 is projected to be stronger than in the first half of the year.

The largest economies of the region continue to demonstrate robust growth in their non-oil sectors. Furthermore, the forward-looking indicators in the region's largest economies have consistently remained at expansionary trajectories of above 50 points for over a year, indicating a positive outlook for oil demand in the region in the near term. Oil demand is expected to be supported by strong government support and solid consumer spending.

Increasing flights to and from the GCC during the peak travel season are expected to support jet/kerosene demand, leading to this growth in terms of petroleum products. Moreover, the inauguration of four new airports and terminals in Saudi Arabia and the UAE earlier this year is expected to bolster air travel in the region.

In addition, rising temperatures during the hot summer season are expected to increase demand for air conditioning and support demand in the region for diesel, fuel oil and crude for direct burning. Furthermore, the current focus on petrochemical sector development is set to bolster petrochemical feedstock requirements in the region. Overall, Middle East oil demand in 2024 is expected to grow by 255 tb/d, y-o-y, for an average of 8.89 mb/d.

World Oil Demand

In 2025, healthy economic dynamics amid spending on infrastructure and mega projects in the Middle East, such as Saudi Arabia's Vision 2030 economic diversification programme and other projects across the region, are projected to continue. In addition, mobility and petrochemical sector requirements are expected to remain steady. These factors are anticipated to support demand for transportation fuels and other distillates. As a result, regional oil demand in 2025 is expected to expand by 382 tb/d, y-o-y, reaching an average of 9.27 mb/d.

World Oil Supply

Non-DoC liquids supply (i.e., liquids supply from countries not participating in the Declaration of Cooperation) is expected to expand by 1.2 mb/d in 2024 to average 53.0 mb/d, unchanged from the previous month's assessment.

US crude and condensate production in April rose very close to its all-time high, while natural gas liquids (NGLs) production set a new monthly record. Accordingly, US liquids supply growth for 2024 is estimated at 0.5 mb/d. In addition to the US, the main drivers for expected non-DoC growth in 2024 are Canada and Brazil.

In 2025, non-DoC liquids supply growth is expected at 1.1 mb/d to average 54.1 mb/d, broadly unchanged from the previous month's assessment. Growth is expected to be driven mainly by the US, Brazil, Canada and Norway, while the main decline is expected in Angola.

DoC NGLs and non-conventional liquids are forecast to grow by around 0.1 mb/d to average 8.3 mb/d in 2024, followed by an increase of around 20 tb/d to average 8.4 mb/d in 2025. OPEC NGLs and non-conventional liquids production is expected to increase by around 60 tb/d to average 5.5 mb/d in 2024, while additional growth of 110 tb/d is forecast in 2025 to average 5.6 mb/d.

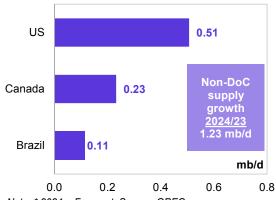
DoC crude oil production in June dropped by 125 tb/d, m-o-m, averaging 40.80 mb/d, as reported by available secondary sources.

Key drivers of growth and decline

Non-DoC liquids supply is expected to grow by 1.2 mb/d in 2024, broadly unchanged from the previous month's assessment. The main drivers for non-DoC liquids supply growth in 2024 are expected to be the US, Canada and Brazil.

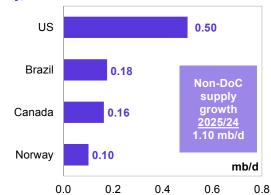
In 2025, non-DoC liquids supply growth is expected at 1.1 mb/d, largely unchanged from the previous month's assessment. Growth is set to be driven mainly by the US, Brazil, Canada and Norway.

Graph 5 - 1: Annual liquids production changes, y-o-y, for selected countries in 2024*



Note: * 2024 = Forecast. Source: OPEC.

Graph 5 - 2: Annual liquids production changes, y-o-y, for selected countries in 2025*



Note: * 2025 = Forecast. Source: OPEC.

Non-DoC liquids production in 2024 and 2025

Table 5 - 1: Non-DoC liquids production in 2024*, mb/d

							Change 2	2024/23
Non-DoC liquids production	2023	1Q24	2Q24	3Q24	4Q24	2024	Growth	%
Americas	26.59	26.91	27.45	27.38	27.59	27.33	0.74	2.78
of which US	20.90	21.02	21.66	21.43	21.51	21.40	0.51	2.43
Europe	3.65	3.68	3.64	3.66	3.79	3.69	0.04	1.07
Asia Pacific	0.45	0.46	0.44	0.44	0.43	0.44	-0.01	-1.72
Total OECD	30.69	31.05	31.53	31.48	31.81	31.47	0.77	2.51
China	4.52	4.62	4.59	4.46	4.46	4.53	0.02	0.35
India	0.79	0.80	0.79	0.80	0.79	0.80	0.01	1.22
Other Asia	1.61	1.62	1.63	1.58	1.58	1.60	-0.01	-0.68
Latin America	6.96	7.28	7.17	7.40	7.50	7.34	0.38	5.44
Middle East	2.02	2.00	2.00	2.01	2.02	2.01	-0.01	-0.71
Africa	2.22	2.24	2.25	2.24	2.26	2.25	0.03	1.32
Other Eurasia	0.36	0.36	0.36	0.36	0.37	0.36	0.00	0.02
Other Europe	0.10	0.10	0.10	0.10	0.10	0.10	0.00	-0.64
Total Non-OECD	18.58	19.03	18.91	18.96	19.08	18.99	0.41	2.19
Total Non-DoC production	49.28	50.07	50.44	50.44	50.88	50.46	1.18	2.39
Processing gains	2.47	2.52	2.52	2.52	2.52	2.52	0.05	2.02
Total Non-DoC liquids production	51.75	52.59	52.96	52.96	53.40	52.98	1.23	2.38
Previous estimate	51.73	52.58	52.79	53.02	53.45	52.96	1.23	2.38
Revision	0.01	0.01	0.16	-0.06	-0.05	0.01	0.00	0.00

Note: * 2024 = Forecast. Totals may not add up due to independent rounding.

Revisions in 2024 are due to an upward revision of the historical baseline.

Source: OPEC.

Table 5 - 2: Non-DoC liquids production in 2025*, mb/d

	Change 2025/24							
Non-DoC liquids production	2024	1Q25	2Q25	3Q25	4Q25	2025	Growth	%
Americas	27.33	27.93	27.73	27.97	28.35	28.00	0.66	2.43
of which US	21.40	21.81	21.83	21.88	22.09	21.90	0.50	2.34
Europe	3.69	3.87	3.75	3.72	3.83	3.79	0.10	2.72
Asia Pacific	0.44	0.43	0.42	0.43	0.44	0.43	-0.01	-1.77
Total OECD	31.47	32.24	31.90	32.13	32.62	32.22	0.76	2.40
China	4.53	4.57	4.55	4.51	4.52	4.54	0.01	0.13
India	0.80	0.79	0.80	0.81	0.81	0.80	0.01	0.98
Other Asia	1.60	1.60	1.58	1.56	1.56	1.57	-0.03	-1.81
Latin America	7.34	7.50	7.54	7.62	7.75	7.60	0.26	3.61
Middle East	2.01	2.01	2.04	2.04	2.03	2.03	0.02	1.01
Africa	2.25	2.27	2.27	2.27	2.26	2.27	0.02	0.76
Other Eurasia	0.36	0.36	0.36	0.36	0.36	0.36	0.00	0.06
Other Europe	0.10	0.10	0.10	0.10	0.10	0.10	0.00	1.99
Total Non-OECD	18.99	19.21	19.24	19.28	19.40	19.28	0.29	1.52
Total Non-DoC production	50.46	51.45	51.14	51.40	52.02	51.50	1.04	2.07
Processing gains	2.52	2.58	2.58	2.58	2.58	2.58	0.06	2.38
Total Non-DoC liquids production	52.98	54.03	53.72	53.98	54.60	54.08	1.10	2.09
Previous estimate	52.96	54.01	53.70	53.97	54.58	54.07	1.10	2.08
Revision	0.01	0.02	0.02	0.02	0.02	0.02	0.00	0.00

Note: * 2025 = Forecast. Totals may not add up due to independent rounding.

Revisions in 2024 and 2025 are due to an upward revision of the historical baseline.

OECD

For 2024, OECD liquids production (excluding DoC Graph 5 - 3: OECD quarterly liquids supply, participating country Mexico) is anticipated to expand y-o-y changes by about 0.8 mb/d to average 31.5 mb/d. Growth is set to be led by OECD Americas, with an expected increase of 0.7 mb/d to average 27.3 mb/d. This is revised up by 65 tb/d compared with the previous month's assessment. Yearly liquids production in OECD Europe is expected to rise by about 40 tb/d to average 3.7 mb/d, which is revised down by 63 tb/d compared with the previous assessment. OECD Asia Pacific is expected to decline by 8 tb/d, y-o-y, to average 0.4 mb/d.

OECD liquids production is forecast to grow by 0.8 mb/d to average 32.2 mb/d in 2025. OECD Americas is expected to be the main growth driver, with an expected increase of 0.7 mb/d for an average of 28.0 mb/d. Yearly liquids production in the OECD



Note: * 2Q24-4Q25 = Forecast. Source: OPEC

Europe is expected to grow by 0.1 mb/d to average 3.8 mb/d, while OECD Asia Pacific is expected to decline by a minor 8 tb/d, y-o-y, to average 0.4 mb/d.

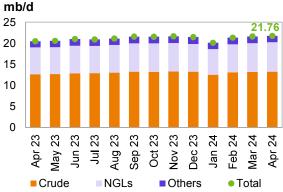
US

US liquids production in April rose by 146 tb/d, m-o-m, to average 21.8 mb/d. This was 1.3 mb/d higher than in April 2023.

Crude oil and condensate production rose by 72 tb/d. Graph 5 - 4: US monthly liquids output by key m-o-m, to average 13.2 mb/d in April, up by 0.6 mb/d, component y-o-y.

In terms of crude and condensate production breakdown by region (PADDs), production increased on the US Gulf Coast (USGC) by 42 tb/d to average 9.6 mb/d. Production in the East Coast (PADD 1) and in the Rocky Mountain (PADD 4) remained broadly unchanged. Output in the Midwest (PADD 2) rose by 31 tb/d, while the West Coast (PADD 5) saw a minor output drop of 6 tb/d, m-o-m.

A m-o-m jump in production in the main producing regions can primarily be attributed to higher output in Texas, the offshore Gulf of Mexico (GoM), North Dakota and Ohio. Conversely, production in New Mexico fell.



Sources: EIA and OPEC.

NGLs production rose by 142 tb/d, m-o-m, to average 7.0 mb/d in April. This was 0.6 mb/d higher, y-o-y. According to the US Department of Energy (DoE), the production of non-conventional liquids (mainly ethanol) dropped by 68 tb/d, m-o-m, to average 1.5 mb/d. Preliminary estimates show non-conventional liquids averaging about 1.6 mb/d in May, higher by about 50 tb/d, m-o-m.

GoM production increased by 14 tb/d, m-o-m, to average 1.8 mb/d in April. Output is still lower than expected due to several operational issues on several platforms, but GoM production is expected to remain supported by new project ramp-ups. In the onshore Lower 48, crude and condensate production rose by 61 tb/d, m-o-m, to average 11.0 mb/d in April.

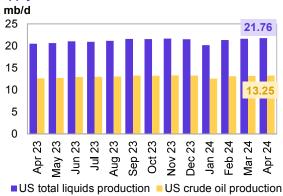
Table 5 - 3: US crude oil production by selected state and region, tb/d

		_		Cha	nge
State	Apr 23	Mar 24	Apr 24	m-o-m	у-о-у
Texas	5,408	5,583	5,636	53	228
New Mexico	1,860	2,016	1,992	-24	132
Gulf of Mexico (GOM)	1,736	1,817	1,831	14	95
North Dakota	1,108	1,214	1,225	11	117
Colorado	451	474	459	-15	8
Alaska	434	433	430	-3	-4
Oklahoma	440	400	409	9	-31
Total	12,650	13,176	13,248	72	598

Sources: EIA and OPEC.

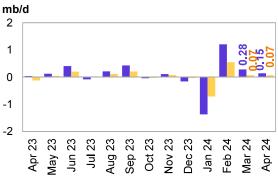
In terms of individual US states, New Mexico's oil production fell by 24 tb/d to average 2.0 mb/d, which is 132 tb/d higher than a year ago. Production from Texas was up by 53 tb/d to average 5.6 mb/d, which is 228 tb/d higher than a year ago. In the Midwest, North Dakota's production rose by 11 tb/d, m-o-m, to average 1.2 mb/d, up 117 tb/d, y-o-y, while Oklahoma's production increased by 9 tb/d, m-o-m, to average 0.4 mb/d. Production in Colorado dropped by 15 tb/d, m-o-m, while output in Alaska remained mostly unchanged.

Graph 5 - 5: US monthly crude oil and total liquids supply



Sources: EIA and OPEC.

Graph 5 - 6: US monthly crude oil and total liquids supply, m-o-m changes

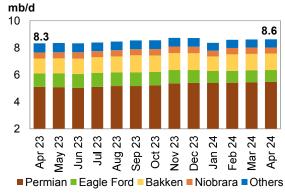


■US total liquids production ■US crude oil production Sources: EIA and OPEC.

US tight crude output in April is estimated to have Graph 5 - 7: US tight crude output breakdown risen by 10 tb/d, m-o-m, to average 8.6 mb/d, according to the latest estimates from the US Energy Information Administration (EIA). This was 0.3 mb/d higher than in the same month last year.

The m-o-m increase from shale and tight formations using horizontal wells mainly came from Permian shale production in Texas and New Mexico, where output rose by 18 tb/d to average 5.5 mb/d. This was up by 0.4 mb/d, y-o-y.

In North Dakota, Bakken shale oil output remained largely unchanged, m-o-m. It averaged 1.2 mb/d, or about 120 tb/d higher, y-o-y. Tight crude output at Eagle Ford in Texas marginally declined to average 0.9 mb/d, down by 124 tb/d, y-o-y. Production at Niobrara-Codell in Colorado and Wyoming was largely unchanged, averaging 464 tb/d.

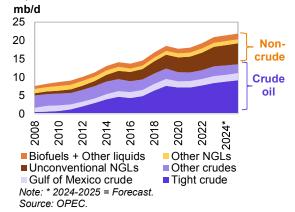


Sources: EIA and OPEC.

World Oil Supply

US liquids production in 2024, excluding processing Graph 5 - 8: US liquids supply developments by gains, is expected to grow by 0.5 mb/d, y-o-y, to component average 21.4 mb/d. This is revised up from the previous assessment due to estimated strong outputs in recent weeks. The forecast assumes a modest level of drilling activity and fewer supply chain/logistical issues this year at the prolific Permian, Bakken and Eagle Ford shale sites.

Crude oil and condensate output in 2024 is expected to increase by 0.3 mb/d, y-o-y, to average 13.2 mb/d. At the same time, NGLs production and that of non-conventional liquids, particularly ethanol, is projected to increase by 0.2 mb/d and 30 tb/d, y-o-y, to average 6.6 mb/d and 1.6 mb/d, respectively.



Average tight crude output in 2024 is expected to reach 8.8 mb/d, up by 0.4 mb/d, y-o-y. The 2024 forecast assumes ongoing capital discipline and less inflationary pressure, as well as moderating supply chain issues and oil field service constraints. At the same time, well productivity and operational efficiency improvements are expected to support crude production despite a reduction in drilling rig counts.

US liquids production, excluding processing gains, is expected to grow by 0.5 mb/d, y-o-y, to average 21.9 mb/d in 2025. This assumes a mild increase in drilling activity, lower service cost inflation and continued well productivity improvements in the key shale basins. Crude oil and condensate output is expected to rise by 0.3 mb/d, y-o-y, to average 13.5 mb/d. At the same time, NGLs production and that of non-conventional liquids, particularly ethanol, is projected to increase, y-o-y, by 0.2 mb/d and 20 tb/d, to average 6.8 mb/d and 1.6 mb/d, respectively. Average tight crude output in 2025 is expected to reach 9.2 mb/d, up by 0.4 mb/d, y-o-y. The 2025 forecast assumes ongoing capital discipline in the US upstream sector.

Table 5 - 4: US liquids production breakdown, mb/d

		Change		Change		Change
US liquids	2023	2023/22	2024*	2024/23	2025*	2025/24
Tight crude	8.41	0.64	8.77	0.36	9.17	0.40
Gulf of Mexico crude	1.86	0.13	1.84	-0.02	1.93	0.09
Conventional crude oil	2.66	0.24	2.62	-0.04	2.42	-0.20
Total crude	12.93	1.02	13.23	0.30	13.51	0.29
Unconventional NGLs	5.31	0.53	5.52	0.21	5.73	0.21
Conventional NGLs	1.12	-0.03	1.09	-0.03	1.07	-0.02
Total NGLs	6.43	0.50	6.61	0.18	6.80	0.19
Biofuels + Other liquids	1.54	0.10	1.57	0.03	1.59	0.02
US total supply	20.90	1.61	21.40	0.51	21.90	0.50

Note: * 2024-2025 = Forecast.

Sources: EIA, OPEC and Rystad Energy.

US tight crude production in the Permian during 2024 is expected to increase by 0.4 mb/d, y-o-y, to average 5.5 mb/d. In 2025, it is forecast to grow by 0.3 mb/d, y-o-y, to average 5.9 mb/d.

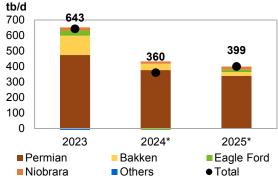
In North Dakota, Bakken shale production is still expected to remain below the pre-pandemic average of 1.4 mb/d. Growth of just 40 tb/d and 25 tb/d is expected for 2024 and 2025, respectively, to average around 1.2 mb/d over both years. This trend could indicate maturity in the basin.

2019, followed by declines in 2020 and 2021. With y-o-y changes marginal increases in 2022 and 2023, output is estimated to have averaged 1.0 mb/d in 2023. In 2024, a decline of 40 tb/d is expected for the basin, while growth of 15 tb/d is forecast for 2025.

Niobrara's production is expected to rise by around 15 tb/d, y-o-y, in 2024, to average 0.5 mb/d. With an expected growth of 20 tb/d, output is forecast to remain at 0.5 mb/d for 2025.

In the remaining tight plays, which are seeing a modest pace of drilling and completion activities, production is expected to drop by about 30 tb/d this vear before stabilizing in 2025.

Eagle Ford in Texas saw an output of 1.2 mb/d in Graph 5 - 9: US tight crude output by shale play,



Note: * 2024-2025 = Forecast. Sources: EIA and OPEC.

Table 5 - 5: US tight oil production growth, mb/d

		Change		Change		Change
US tight oil	2023	2023/22	2024*	2024/23	2025*	2025/24
Permian tight	5.14	0.47	5.52	0.38	5.86	0.34
Bakken shale	1.16	0.13	1.20	0.04	1.22	0.03
Eagle Ford shale	1.00	0.03	0.96	-0.04	0.98	0.02
Niobrara shale	0.45	0.02	0.47	0.01	0.49	0.02
Other tight plays	0.66	-0.01	0.62	-0.03	0.62	0.00
Total	8.41	0.64	8.77	0.36	9.17	0.40

Note: * 2024-2025 = Forecast.

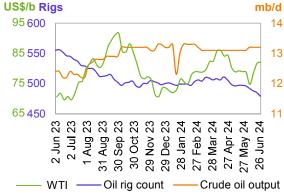
Source: OPEC.

US rig count, spudded, completed, DUC wells and fracking activity

in the week ending 28 June 2024 dropped by seven output and WTI price to 581, according to Baker Hughes. This is 93 fewer rigs than a year ago. The number of active offshore rigs remained unchanged, w-o-w, at 21. This is two more than in the same month a year earlier. The number of onshore oil and gas rigs dropped by seven, w-o-w, to stand at 560, with no rigs in inland waters. This is down by 93 rigs, y-o-y.

The US horizontal rig count dropped by seven, w-o-w, to 518, compared with 606 horizontal rigs a year ago. The number of drilling rigs for oil fell by six, w-o-w, to 479, while the number of gas drilling rigs dropped by one, w-o-w, to 97.

The total number of active US oil and gas drilling rigs Graph 5 - 10: US weekly rig count vs. US crude oil



Sources: Baker Hughes, EIA and OPEC.

The Permian's rig count fell by three, w-o-w, to 305. Rig counts remained unchanged in Williston, Cana Woodford and DJ-Niobrara at 35, 17 and 10, respectively. The number of rigs fell by three, w-o-w, in Eagle Ford to 47.

World Oil Supply

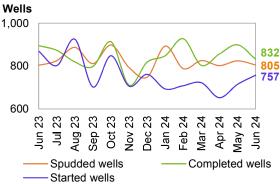
According to Rystad Energy, drilling and completion Graph 5 - 11: Spudded, completed and started wells activities for oil-producing wells in all US shale plays in US shale plays include 824 horizontal wells spudded in May (as per preliminary data). This is higher by 22, m-o-m, and 6% higher than May last year.

Preliminary data for May indicates a higher number of completed wells, m-o-m, at 899, though the number is up by about 1%, y-o-y. The number of started wells is estimated at 714, which is 23% lower than a year earlier.

Preliminary data for June saw 805 spudded, 832 completed and 757 started wells, based on Rystad Energy.

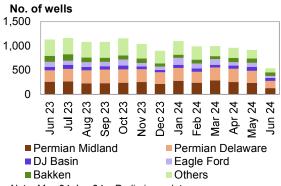
In terms of identifying US oil and gas fracking operations by region. Rystad Energy reported that 960 wells started to frack in April. In May and June, it stated that 914 and 535 wells began fracking, respectively, according to preliminary numbers based on an analysis of high-frequency satellite data.

In regional terms, preliminary data for May shows that 232 and 251 wells started fracking in the Permian Midland and Permian Delaware regions, respectively. There was a drop of 23 wells in the Midland region and a decline of 20 in Delaware compared with April. Data also indicates that 83 wells began fracking in the DJ Basin, 86 in Eagle Ford, and 84 in Bakken during May.



Note: May 24-Jun 24 = Preliminary data. Sources: Rystad Energy and OPEC.

Graph 5 - 12: Started fracs per month by regions



Note: May 24-Jun 24 = Preliminary data. Sources: Rystad Energy Shale Well Cube and OPEC.

Canada

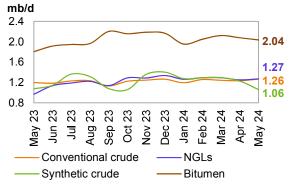
have dropped by about 160 tb/d, m-o-m, to average development by type 5.7 mb/d.

Conventional crude production rose in May by 29 tb/d, m-o-m, to average 1.3 mb/d. NGLs output was up by 20 tb/d, m-o-m, to average 1.3 mb/d.

Crude bitumen production output fell in May by 42 tb/d, m-o-m, and synthetic crude production dropped by 167 tb/d, m-o-m. Taken together, crude bitumen and synthetic crude production fell by 0.2 mb/d to average 3.1 mb/d.

Liquid production in 2Q24 is expected to be subdued due to major scheduled maintenance, but a gradual recovery is expected in 3Q24. At the same time, wildfire conditions could threaten oil sand operations across northeastern Alberta and disturb expected production this year.

Canada's liquids production in May is estimated to Graph 5 - 13: Canada's monthly liquids production

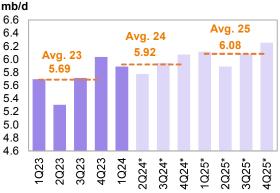


Sources: Statistics Canada, Alberta Energy Regulator and

World Oil Supply

In 2024, Canada's liquids production is forecast to Graph 5 - 14: Canada's quarterly liquids production increase at a much faster pace compared with 2023, and forecast rising by 0.2 mb/d to average 5.9 mb/d. Incremental production is expected to come from oil sands project ramp-ups, optimization, and the expansion of existing facilities in areas like Montney, Kearl and Fort Hills, in addition to some conventional field growth. At the same time, new trade flows could stimulate production amid the commissioning of the Trans Mountain Expansion (TMX) pipeline on 1 May of this year.

Canada's liquids production is forecast to grow by 0.2 mb/d to average 6.1 mb/d in 2025. Additional production is expected to come from expanding oil sands projects and some growth in conventional fields. Sources of production are primarily expected from the Athabasca, Syncrude Mildred Lake, Kearl, Horizon, Christina Lake, Suncor and Foster Creek oil



Note: * 2Q24-4Q25 = Forecast. Source: OPEC.

sands projects. The main start-ups in 2025 are expected to be Syncrude Mildred Lake/Aurora, Narrows Lake, Lloyd Thermal, Cold Lake Oil Sands, and the Montney Play.

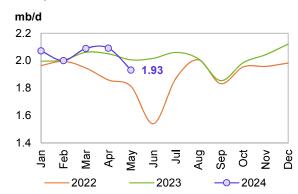
Norway

160 tb/d, m-o-m, to average 1.9 mb/d, mainly due to development planned maintenance. Norway's crude production decreased by 151 tb/d, m-o-m, in May to average 1.7 mb/d. This was down by 97 tb/d, y-o-y. Monthly oil production was 2.9% higher than the Norwegian Offshore Directorate's (NOD) forecast.

Production of NGLs and condensate fell by just 9 tb/d, m-o-m, to average 0.2 mb/d, according to NOD data.

For 2024, Norwegian liquids production is forecast to increase by 30 tb/d to average 2.0 mb/d. This was revised down by 69 tb/d from the previous assessment due to a higher maintenance effect. Several projects are scheduled to ramp up this year. At the same time, start-ups are expected at the Balder/Ringhorne, Eldfisk, Kristin, Hanz and

Norwegian liquids production in May dropped by Graph 5 - 15: Norway's monthly liquids production



Sources: The Norwegian Offshore Directorate (NOD) and OPEC.

PL636 offshore projects, along with the Alvheim and Skarv Aasgard floating, production, storage and offloading (FPSO) projects. Johan Castberg is projected to be the main source of output growth, with the first oil planned for later this year. The completion and commissioning activities for Johan Castberg's FPSO and inshore testing have been recently carried out at Aker Stord, and it is expected to set sail this summer.

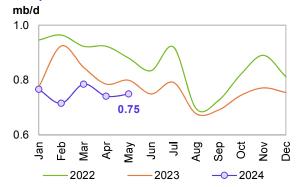
In 2025, Norwegian liquids production is forecast to grow by 0.1 mb/d to average 2.1 mb/d. Several small-tolarge-scale projects are scheduled to ramp up in 2025, including Johan Castberg, Kristin, Eldfisk and Balder/Ringhorne. At the same time, start-ups are expected at the Ormen Lange, Snohvit, Halten East, Tyrving, Eirin, Norne FPSO, Maria and Verdande projects.

UK

In May, UK liquids production rose by 8 tb/d, m-o-m, to average 0.7 mb/d. Crude oil output increased by just 5 tb/d, m-o-m, to average 0.6 mb/d. This was lower by 57 tb/d, y-o-y, according to official data. NGLs output rose by a minor 3 tb/d, to average 84 tb/d.

For 2024, UK liquids production is forecast to drop by Graph 5 - 16: UK monthly liquids production 14 tb/d to average 0.8 mb/d. Production ramp-ups will development be seen at the ETAP and Clair sites, as well as at the Anasuria and Captain enhanced oil recovery (EOR) start-up projects. The Penguins FPSO unit is expected to be towed out to the UK North Sea fields in 2H24.

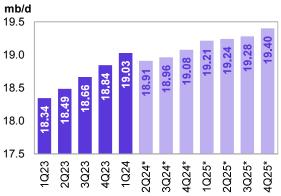
UK liquids production is forecast to stay steady at an average of 0.8 mb/d in 2025. Production ramp-ups will be seen at the Clair sites and Schiehallion. Elsewhere, project start-ups are expected at the Laggan-Tormore, Alwyn, Murlach redevelopment) and Janice assets. However, decline rates from the ageing basin are expected to offset these additional volumes.



Sources: UK Department for Business, Energy and Industrial Strategy and OPEC.

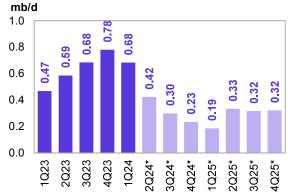
Non-OECD

Graph 5 - 17: Non-OECD guarterly liquids production and forecast



Note: * 2Q24-4Q25 = Forecast. Source: OPEC.

Graph 5 - 18: Non-OECD quarterly liquids supply, y-o-y changes

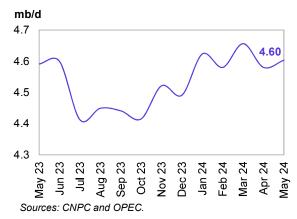


Note: * 2Q24-4Q25 = Forecast. Source: OPEC.

China

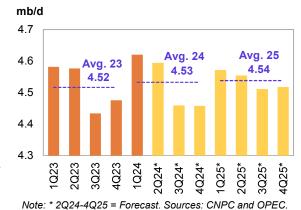
average 4.6 mb/d in May. This is up by 12 tb/d, y-o-y, development according to official data. Crude oil output in May averaged 4.3 mb/d, up by 23 tb/d compared with the previous month. This was also higher by 17 tb/d, y-o-y. Conversely, NGLs and condensate production remained unchanged, m-o-m, averaging 41 tb/d.

China's liquids production rose by 23 tb/d, m-o-m, to Graph 5 - 19: China's monthly liquids production



rise by 16 tb/d, y-o-y, and is forecast to average and forecast 4.5 mb/d. This is largely unchanged from the previous assessment. Natural decline rates are anticipated to be offset by additional growth through more infill wells and EOR projects. Chinese majors are set to maintain high upstream Capex in 2024 to meet the growth requirements stated in the 2019 Seven-Year Exploration and Production Increase Action Plan. For this year, Lingshui 17-2, Lufeng, Liuhua 11-1, Xi'nan, Bozhong 19-2 Oilfield Development, Suizhong 36-1, Shayan and Liuhua 4-1 (redevelopment) – which are operated by CNOOC, PetroChina and Sinopec – are expected to come on stream. At the same time, key ramp-ups are planned for Changging, Kenli 10-2, Wushi 17-2 and Kenli 6-4.

For 2024, China's liquids production is expected to Graph 5 - 20: China's quarterly liquids production

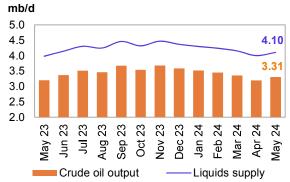


In 2025, Chinese liquids production is expected to remain steady, y-o-y, and is forecast to average 4.5 mb/d. The supply growth is primarily expected to come from the offshore sector. For next year, oil and gas condensate projects like Bozhong 19-6, Huizhou 26-6, Peng Lai 19-9, Shengli, Wushi 17-2, Liaohe and Xijiang 30-2 - which are operated by CNOOC and Sinopec - are expected to come on stream. Meanwhile, key rampups are planned for Changqing, Tarim, Xibei, Peng Lai 19-9 and Xi'nan.

Brazil

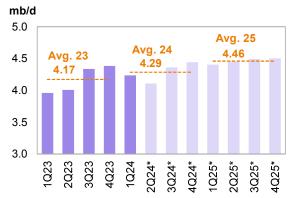
Brazil's crude output in May rose by 113 tb/d, m-o-m, to average 3.3 mb/d. Output is still lower than expected, primarily due to more extensive maintenance than anticipated, operational issues and natural decline. NGLs production, however, remained largely unchanged, at an average of around 80 tb/d, and is expected to remain flat in June 2024. Biofuel output (mainly ethanol) is estimated to drop by 11 tb/d, m-o-m, to average 0.7 mb/d, with preliminary data showing a stable trend in June. The country's total liquids production rose by 0.1 mb/d in May to average 4.1 mb/d, while this was also higher by 0.1 mb/d, y-o-y.

Graph 5 - 21: Brazil's monthly liquids production development by type



Sources: Brazilian National Agency of Petroleum, Natural Gas and Biofuels (ANP) and OPEC.

Graph 5 - 22: Brazil's quarterly liquids production



Note: * 2Q24-4Q25 = Forecast. Sources: ANP and OPEC.

For 2024, Brazil's liquids supply, including biofuels, is forecast to grow by about 0.1 mb/d, y-o-y, to average 4.3 mb/d. Crude oil output is expected to increase through production ramp-ups in the Buzios (Franco), Mero (Libra NW), Tupi (Lula) and Itapu (Florim) fields. Oil project start-ups are expected at the Buzios, Atlanta, Pampo-Enchova Cluster and Vida sites. However, increasing costs in the offshore market and inflation may continue to delay projects and temper growth in the short term. The Brazilian state-controlled Petrobras FPSO unit, Maria Quiteria, is expected to start production in 4Q24 - earlier than previously expected - following its deployment at the Parque das Baleias integrated project.

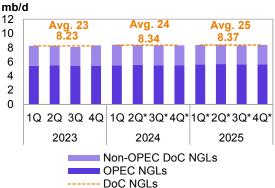
Brazil's liquids supply, including biofuels, is forecast to increase by about 180 tb/d, y-o-y, to average 4.5 mb/d in 2025. Crude oil output is expected to increase through production ramp-ups in the Buzios (Franco), Mero (Libra NW), Tupi (Lula), Marlim and Atlanta fields. Oil project start-ups are expected at the Buzios, Bacalhau (x-Carcara), Parque das Baleias and Lapa (Carioca) fields.

DoC NGLs and non-conventional liquids

DoC NGLs and non-conventional liquids are Graph 5 - 23: DoC NGLs and non-conventional estimated to expand by about 0.1 mb/d in 2024 to liquids quarterly production and forecast average 8.3 mb/d.

Preliminary data shows NGLs and non-conventional liquids output in 2Q24 averaging 8.3 mb/d. According to preliminary May data, OPEC Member Countries and non-OPEC DoC countries are estimated to produce 5.6 mb/d and 2.8 mb/d, respectively, of NGLs and non-conventional liquids.

The 2025 forecast points toward a combined increase of about 20 tb/d for an average of 8.4 mb/d. NGLs and non-conventional liquids production are projected to grow by 0.1 mb/d to average 5.6 mb/d for OPEC Member Countries. However, it is expected to drop by about 90 tb/d for non-OPEC DoC countries.



Note: * 2Q24-4Q25 = Forecast. Source: OPEC.

Table 5 - 6: DoC NGI s + non-conventional liquids mb/d

Table 3 - 6. Doo Nots - non-conventional liquids, lib/d											
DoC NGLs and	Change			Change						Change	
non-coventional liquids	2023	23/22	2024	24/23	1Q25	2Q25	3Q25	4Q25	2025	25/24	
OPEC	5.46	0.06	5.53	0.06	5.60	5.67	5.64	5.64	5.64	0.11	
Non-OPEC DoC	2.77	0.20	2.82	0.05	2.78	2.75	2.66	2.75	2.73	-0.09	
Total	8.23	0.26	8.34	0.11	8.38	8.42	8.30	8.39	8.37	0.02	

Note: 2024-2025 = Forecast.

DoC crude oil production

According to secondary sources, **total OPEC-12 crude oil production** averaged 26.57 mb/d in June 2024, 80 tb/d lower, m-o-m. Crude oil output increased mainly in Libya, Venezuela and IR Iran, while production in Saudi Arabia, Iraq and the UAE decreased.

At the same time, **total non-OPEC DoC crude oil production** averaged 14.24 mb/d in June 2024, 45 tb/d lower, m-o-m. Crude oil output increased mainly in Kazakhstan and Azerbaijan, while production in Russia decreased.

Table 5 - 7: DoC crude oil production based on secondary sources, tb/d

Secondary									Change
sources	2022	2023	4Q23	1Q24	2Q24	Apr 24	May 24	Jun 24	Jun/May
Algeria	1,013	973	957	907	904	907	900	906	6
Congo	261	261	251	245	262	268	258	260	2
Equatorial Guinea	84	56	53	55	56	50	62	54	-8
Gabon	195	203	216	214	210	203	216	212	-4
IR Iran	2,554	2,859	3,154	3,179	3,237	3,223	3,238	3,251	13
Iraq	4,439	4,287	4,324	4,244	4,202	4,203	4,215	4,189	-25
Kuwait	2,704	2,595	2,552	2,430	2,430	2,433	2,430	2,427	-3
Libya	981	1,162	1,170	1,119	1,190	1,194	1,177	1,200	24
Nigeria	1,210	1,314	1,381	1,414	1,360	1,345	1,372	1,362	-10
Saudi Arabia	10,531	9,609	8,952	9,009	8,992	9,031	9,010	8,934	-76
UAE	3,066	2,950	2,906	2,926	2,930	2,929	2,938	2,921	-17
Venezuela	684	749	774	816	835	825	830	851	21
Total OPEC	27,722	27,019	26,690	26,558	26,607	26,609	26,646	26,566	-80
Azerbaijan	560	503	487	477	475	479	466	479	13
Bahrain	193	182	182	168	176	179	176	172	-4
Brunei	75	72	78	82	68	75	62	69	7
Kazakhstan	1,489	1,597	1,606	1,613	1,546	1,587	1,502	1,549	47
Malaysia	395	377	378	362	364	371	361	362	1
Mexico	1,667	1,645	1,624	1,610	1,605	1,605	1,605	1,604	-2
Oman	850	819	807	772	766	766	766	768	2
Russia	9,771	9,581	9,496	9,431	9,231	9,301	9,253	9,139	-114
Sudan	62	54	47	34	25	25	24	26	3
South Sudan	144	146	153	113	66	65	64	68	3
Total Non-OPEC DoC	15,206	14,974	14,858	14,662	14,322	14,452	14,280	14,235	-45
Total DoC	42,928	41,993	41,548	41,220	40,930	41,061	40,926	40,801	-125

Notes: Totals may not add up due to independent rounding, given available secondary sources to date.

OPEC crude oil production

OPEC crude oil production for June, as reported by OPEC Member Countries, is shown in *Table 5 – 8* below.

Table 5 - 8: OPEC crude oil production based on direct communication, tb/d

									Change
Direct communication	2022	2023	4Q23	1Q24	2Q24	Apr 24	May 24	Jun 24	Jun/May
Algeria	1,020	973	958	907	905	907	901	906	5
Congo	262	271	259	252	260	259	264	259	-5
Equatorial Guinea	81	55	53	53	60	60	62	58	-4
Gabon	191	223	234						
IR Iran									
Iraq	4,453	4,118	4,123	3,957		3,891	3,860		
Kuwait	2,707	2,590	2,548	2,413	2,413	2,413	2,413	2,413	0
Libya		1,189	1,191	1,149		1,218			
Nigeria	1,138	1,187	1,260	1,327	1,270	1,281	1,251	1,276	25
Saudi Arabia	10,591	9,606	8,901	8,979	8,937	8,986	8,993	8,830	-163
UAE	3,064	2,944	2,892	2,919	2,928	2,917	2,933	2,935	2
Venezuela	716	783	796	864	904	878	910	922	12
Total OPEC									

Notes: .. Not available. Totals may not add up due to independent rounding.

Commercial Stock Movements

Preliminary May 2024 data shows total OECD commercial oil stocks up by 24.7 mb, m-o-m. At 2,813 mb, they were 1.1 mb lower than the same time one year ago, 101.6 mb less than the latest five-year average, and 142.4 mb below the 2015-2019 average. Within the components, crude stocks fell by 5.4 mb, while product stocks rose by 30.1 mb, m-o-m.

OECD commercial crude stocks stood at 1,366 mb. This was 27.9 mb lower than the same time a year ago, 61.0 mb below the latest five-year average, and 119.6 mb less than the 2015-2019 average.

OECD total product stocks stood at 1,447 mb. This is 26.8 mb higher than the same time a year ago, but 40.6 mb lower than the latest five-year average, and 22.8 mb below the 2015–2019 average.

In terms of days of forward cover, OECD commercial stocks increased in May by 0.3 days, m-o-m, to stand at 60.6 days. This is 0.3 days less than the level registered in May 2023, 4.0 days lower than the latest five-year average, and 1.4 days less than the 2015–2019 average.

Preliminary data for June 2024 shows that total US commercial oil stocks rose by 6.4 mb, m-o-m, to stand at 1,283 mb. This is 18.7 mb, or 1.5%, higher than the same month in 2023, but 14.5 mb, or 1.1%, below the latest five-year average. Crude stocks fell by 7.4 mb, while product stocks rose by 13.8 mb, m-o-m.

OECD

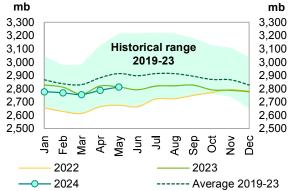
Preliminary May 2024 data shows total OECD Graph 9 - 1: OECD commercial oil stocks commercial oil stocks up by 24.7 mb, m-o-m. At 2,813 mb, they were 1.1 mb lower than the same time one year ago, 101.6 mb less than the latest five-year average, and 142.4 mb below the 2015-2019 average.

Within the components, crude stocks fell by 5.4 mb, while product stocks rose by 30.1 mb, m-o-m.

Within the OECD regions, in May, total commercial oil stocks rose in OECD America and OECD Europe. while they fell in OECD Asia Pacific.

OECD commercial crude stocks fell by 5.4 mb, m-o-m, ending May at 1,366 mb. This was 27.9 mb lower than the same time a year ago, 61.0 mb below the latest five-year average, and 119.6 mb less than the 2015–2019 average.





Sources: Argus, EIA, Euroilstock, IEA, METI and OPEC.

Within the OECD regions, OECD Americas and OECD Asia Pacific saw crude stock draws of 7.9 mb and 6.2 mb, m-o-m, respectively, while crude stocks in OECD Europe rose by 8.7 mb, m-o-m.

OECD total product stocks rose by 30.1 mb in May to stand at 1,447 mb. This is 26.8 mb higher than the same time a year ago, but 40.6 mb lower than the latest five-year average, and 22.8 mb below the 2015–2019 average.

Within the OECD regions, product stocks in OECD Europe witnessed a drop of 1.7 mb, m-o-m, while OECD Americas and OECD Asia Pacific product stocks rose by 27.1 mb and 4.7 mb, respectively.

Table 9 - 1: OECD commercial stocks, mb

					Change
OECD stocks	May 23	Mar 24	Apr 24	May 24	May 24/Apr 24
Crude oil	1,393	1,350	1,371	1,366	-5.4
Products	1,421	1,406	1,417	1,447	30.1
Total	2,814	2,756	2,788	2,813	24.7
Days of forward cover	60.9	60.1	60.3	60.6	0.3

Note: Totals may not add up due to independent rounding. Sources: Argus, EIA, Euroilstock, IEA, METI and OPEC.

In terms of days of forward cover, OECD commercial stocks increased in May by 0.3 days, m-o-m, to stand at 60.6 days. This is 0.3 days less than the level registered in May 2023, 4.0 days lower than the latest five-year average, and 1.4 days less than the 2015–2019 average.

Within the OECD regions, OECD Americas stood at 3.9 days and OECD Europe 4.1 days below the latest five-year average, at 59.5 days and 68.9 days, respectively. OECD Asia Pacific was 3.7 days less than the latest five-year average, standing at 48.5 days.

OECD Americas

OECD Americas' total commercial stocks rose in May by 19.2 mb, m-o-m, to settle at 1,528 mb. This is 15.4 mb higher than the same month in 2023, but 26.5 mb below the latest five-year average.

Commercial crude oil stocks in OECD Americas fell in May by 7.9 mb, m-o-m, to stand at 769 mb, which is 5.7 mb lower than in May 2023 and 22.1 mb less than the latest five-year average.

In contrast, total product stocks in OECD Americas rose by 27.1 mb, m-o-m, in May to stand at 760 mb. This is 21.1 mb higher than the same month in 2023, but 4.4 mb below the latest five-year average. Lower consumption in the region was behind the product stock build.

OECD Europe

OECD Europe's total commercial stocks rose in May by 7.0 mb, m-o-m, to settle at 945 mb. This is 0.4 mb less than the same month in 2023, and 47.0 mb below the latest five-year average.

OECD Europe's commercial crude stocks increased by 8.7 mb, m-o-m, to end May at 423 mb. This is 7.7 mb less than one year ago and 13.6 mb lower than the latest five-year average.

By contrast, total product stocks fell by 1.7 mb, m-o-m, to end May at 522 mb. This is 7.3 mb higher than the same time a year ago, but 33.4 mb below the latest five-year average.

OECD Asia Pacific

OECD Asia Pacific's total commercial oil stocks fell in May by 1.4 mb, m-o-m, to stand at 339 mb. This is 16.1 mb lower than the same time a year ago and 28.1 mb below the latest five-year average.

OECD Asia Pacific's crude stocks fell by 6.2 mb, m-o-m, to end May at 174 mb. This is 14.5 mb lower than one year ago, and 25.3 mb less than the latest five-year average.

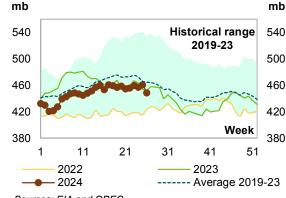
By contrast, OECD Asia Pacific's total product stocks increased by 4.7 mb, m-o-m, to end May at 165 mb. This is 1.6 mb lower than one year ago and 2.8 mb below the latest five-year average.

US

Preliminary data for June 2024 shows that total US Graph 9 - 2: US weekly commercial crude oil commercial oil stocks rose by 6.4 mb, m-o-m, to stand inventories at 1,283 mb. This is 18.7 mb, or 1.5%, higher than the same month in 2023, but 14.5 mb, or 1.1%, below the latest five-year average. Crude stocks fell by 7.4 mb, while product stocks rose by 13.8 mb, m-o-m.

US commercial crude stocks in June stood at 449 mb. This is 6.2 mb, or 1.4%, lower than the same month in 2023, and 14.8 mb, or 3.2%, below the latest five-year average. The monthly draw in crude oil stocks is attributable to higher crude runs, which increased by around 140 tb/d or 0.8%, m-o-m, to average 17.2 mb/d in June.

By contrast, total product stocks rose in May to stand at 835 mb. This is 24.9 mb, or 3.1%, higher than in June 2023, and 0.3 mb, or 0.03%, above the latest five-year average. The product stock build can be attributed to lower product consumption.



Sources: EIA and OPEC.

Gasoline stocks rose in June by 0.7 mb, m-o-m, to **Graph 9 - 3: US weekly gasoline inventories** settle at 231.7 mb. This is 8.5 mb, or 3.8%, higher than the same month in 2023, but 1.5 mb, or 0.6%, below the latest five-year average.

Jet fuel stocks increased by 0.2 mb, m-o-m, ending June at 43.3 mb. This is 0.6 mb, or 1.3%, higher than the same month in 2023, and 1.5 mb, or 3.6%, above the latest five-year average.

By contrast, distillate stocks in June fell by 2.8 mb, m-o-m, to stand at 119.7 mb. This is 7.1 mb, or 6.3%, higher than the same month in 2023, but 14.7 mb, or 10.9%, below the latest five-year average.

Residual fuel oil stocks in June fell by 0.3 mb, m-o-m. At 28.2 mb, they were 2.2 mb, or 7.3%, less than a year earlier, and 4.0 mb, or 12.5%, below the latest five-year average.

mb mb 280 280 Historical range 260 260 2019-23 240 240 220 220 Week 200 200 11 21 31 41 51 2023 2022 2024 ----- Average 2019-23

Sources: EIA and OPEC.

Table 9 - 2: US commercial petroleum stocks, mb

					Change
US stocks	Jun 23	Apr 24	May 24	Jun 24	Jun 24/May 24
Crude oil	454.7	463.8	455.9	448.5	-7.4
Gasoline	223.2	233.3	230.9	231.7	0.7
Distillate fuel	112.6	117.8	122.5	119.7	-2.8
Residual fuel oil	30.4	27.9	28.5	28.2	-0.3
Jet fuel	42.7	41.6	43.1	43.3	0.2
Total products	809.7	794.2	820.7	834.5	13.8
Total	1,264.4	1,258.1	1,276.6	1,283.1	6.4
SPR	347.2	366.9	370.2	372.6	2.4

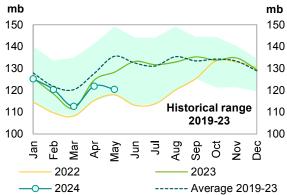
Sources: EIA and OPEC.

Japan

In Japan, total commercial oil stocks in May 2024 fell by 1.4 mb, m-o-m, to settle at 120.5 mb. This is 7.8 mb, or 6.1%, lower than the same month in 2023 and 15.1 mb, or 11.1%, below the latest five-year average. Crude stocks decreased by 6.2 b, m-o-m, while product stocks rose by 4.7 mb.

Japanese commercial crude oil stocks fell in May by 6.2 mb, m-o-m, to stand at 61.5 mb. This is 12.7 mb, or 17.1%, lower than the same month in 2023 and 16.0 mb, or 20.6%, below the latest five-year average. The draw in crude stocks came on the back of lower crude imports, which decreased in May by 513 tb/d, or 19.6%, m-o-m, to average 2.1 mb/d.

Gasoline stocks rose by 1.2 mb, m-o-m, to stand at 11.7 mb in May. This is 1.0 mb, or 9.8%, higher than a year earlier, and they are in line with the latest five-year average. The build in gasoline stocks came on the back of higher gasoline imports, which rose by 38%, m-o-m, in May.



Sources: METI and OPEC.

Distillate stocks rose by 3.6 mb, m-o-m, to end May at 25.3 mb. This is 2.1 mb, or 9.1%, higher than the same month in 2023 and 1.1 mb, or 4.3%, above the latest five-year average. Within the distillate components, jet fuel, gasoil and kerosene stocks rose by 10.4%, 10.5%, and 27.2%, respectively.

By contrast, total residual fuel oil stocks fell, m-o-m, by 0.1 mb to end May at 12.6 mb. This is 0.7 mb, or 5.7%, higher than the same month in 2023, and 0.2 mb, or 2.0%, above the latest five-year average. Within the components, fuel oil A stocks rose by 3.0%, m-o-m, while fuel oil B.C stocks fell by 3.3%, m-o-m.

Table 9 - 3: Japan's commercial oil stocks*, mb

	,				Change
Japan's stocks	May 23	Mar 24	Apr 24	May 24	May 24/Apr 24
Crude oil	74.2	62.6	67.7	61.5	-6.2
Gasoline	10.6	9.8	10.5	11.7	1.2
Naphtha	8.3	9.0	9.2	9.3	0.1
Middle distillates	23.2	20.3	21.7	25.3	3.6
Residual fuel oil	12.0	11.0	12.8	12.6	-0.1
Total products	54.1	50.1	54.2	58.9	4.7
Total**	128.3	112.7	121.9	120.5	-1.4

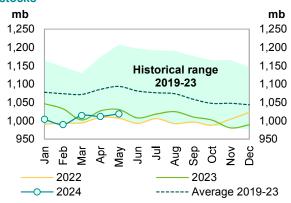
Note: * At the end of the month. ** Includes crude oil and main products only.

Sources: METI and OPEC.

EU-14 plus UK and Norway

Preliminary data for May 2024 showed that total Graph 9 - 5: EU-14 plus UK and Norway total oil European commercial oil stocks rose by 7.0 mb, stocks m-o-m, to stand at 1,019 mb. At this level, they were 11.4 mb, or 1.1%, below the same month in 2023, and 74.3 mb, or 6.8%, less than the latest five-year average. Crude stocks rose by 8.7 mb, m-o-m, while product stocks fell by 1.7 mb, m-o-m.

European crude stocks stood at 430.5 mb in May. This is 11.9 mb, or 2.7%, lower than the same month in 2023 and 38.5 mb, or 8.2% less than the latest five-year average. The build in crude oil stocks came on the back of lower refinery throughput in the EU-14, plus the UK and Norway, which decreased by around 40 tb/d or 0.4%, m-o-m, to stand at 9.67 mb/d.



Sources: Argus, Euroilstock and OPEC.

Total European product stocks fell by 1.7 mb, m-o-m, to end May at 588.9 mb. This is 0.5 mb, or 0.1%, higher than the same month in 2023, but 35.8 mb, or 5.7%, below the latest five-year average. The stock draw can be attributed to higher demand in the region.

Gasoline stocks fell in May by 1.0 mb, m-o-m, to stand at 110.6 mb, which is 7.8 mb, or 7.6%, higher than the same time in 2023, but 1.8 mb, or 1.6%, below the latest five-year average.

Middle distillate stocks decreased in May by 1.3 mb, m-o-m, to stand at 391.9 mb. This is 2.8 mb, or 0.7%, lower than the same month in 2023 and 23.5 mb, or 5.6%, lower than the latest five-year average.

Residual fuel stocks were down in May by 0.5 mb, m-o-m, to stand at 59.5 mb. This is 3.9 mb, or 6.1%, lower than the same month in 2023 and 6.2 mb, or 9.4%, below the latest five-year average.

By contrast, naphtha stocks rose in May by 1.1 mb, m-o-m, ending the month at 26.8 mb. This is 0.7 mb, or 2.5%, below the same month in 2023, and 4.3 mb, or 13.9 %, lower than the latest five-year average.

Table 9 - 4: EU-14 plus UK and Norway's total oil stocks, mb

					Change
EU stocks	May 23	Mar 24	Apr 24	May 24	May 24/Apr 24
Crude oil	442.4	419.9	421.8	430.5	8.7
Gasoline	102.8	110.9	111.6	110.6	-1.0
Naphtha	27.5	28.3	25.8	26.8	1.1
Middle distillates	394.6	396.8	393.2	391.9	-1.3
Fuel oils	63.4	58.6	60.0	59.5	-0.5
Total products	588.3	594.6	590.5	588.9	-1.7
Total	1,030.7	1,014.5	1,012.3	1,019.3	7.0

Sources: Argus, Euroilstock and OPEC.

Singapore, Amsterdam-Rotterdam-Antwerp (ARA) and Fujairah

Singapore

In May, total product stocks in Singapore fell by 1.5 mb, m-o-m, to stand at 43.5 mb. This is 1.4 mb, or 3.4%, higher than the same month in 2023, but 3.6 mb, or 7.6%, less than the latest five-year average.

Light distillate stocks fell in May by 0.4 mb, m-o-m, to stand at 15.1 mb. This is in line with the level seen in the same month in 2023, and 1.1 mb, or 7.8%, above the latest five-year average.

Middle distillate stocks decreased in May by 0.6 mb, m-o-m, to stand at 10.8 mb. This is 2.9 mb, or 35.9%, higher than in May 2023, and 0.2 mb, or 1.7%, above the latest five-year average.

Residual fuel oil stocks went down by 0.5 mb, m-o-m, ending May at 17.5 mb. This is 1.4 mb, or 7.5%, lower than in May 2023, and 4.9 mb, or 21.7%, below the latest five-year average.

ARA

Total product stocks in ARA in May fell by 1.3 mb, m-o-m. At 46.0 mb, they were 0.1 mb, or 0.2%, above the same month in 2023, and 0.6 mb, or 1.3 %, higher than the latest five-year average.

Gasoline stocks fell by 0.5 mb, m-o-m, ending May at 8.3 mb. This is 3.1 mb, or 26.9%, lower than in May 2023, and 1.8 mb, or 17.7%, below the latest five-year average.

Gasoil stocks in May remained unchanged, m-o-m, to stand at 16.6 mb. This is 0.5 mb, or 2.9%, less than the same month in 2023, and 0.6 mb, or 3.4%, lower than the latest five-year average.

Fuel oil stocks decreased in May by 0.2 mb, m-o-m, to stand at 10.0 mb. This is 1.9 mb, or 23.0%, higher than in May 2023 and 1.7 mb, or 20.3%, above the latest five-year average.

By contrast, jet oil stocks rose by 0.3 mb, m-o-m, to stand at 6.9 mb in May. This is 0.2 mb, or 3.3%, higher than the level seen in May 2023, but 0.1 mb, or 1.5% lower than the latest five-year average.

Fujairah

During the week ending 1 July 2024, total oil product stocks in Fujairah fell by 1.27 mb, w-o-w, to stand at 16.54 mb, according to data from FEDCom and S&P Global Commodity Insights. At this level, total oil stocks were 3.65 mb lower than at the same time a year ago.

Middle distillate stocks rose by 0.08 mb, w-o-w, to stand at 2.66 mb, which is 0.90 mb less than the same time last year.

By contrast, light distillate stocks fell by 0.82 mb, w-o-w, to stand at 5.14 mb, which is 1.09 mb lower than a year ago.

Heavy distillate stocks also decreased by 0.53 mb, w-o-w, to stand at 8.74 mb, which is 1.66 mb below the same time a year ago.

Balance of Supply and Demand

Demand for DoC crude (i.e. crude from countries participating in the Declaration of Cooperation) is revised down by 0.1 mb/d from the previous assessment at 43.1 mb/d in 2024, around 0.9 mb/d higher than the estimate for 2023.

Demand for DoC crude in 2025 is revised down by 0.1 mb/d from the previous assessment to stand at 43.9 mb/d, around 0.7 mb/d higher than the estimate for 2024.

Balance of supply and demand in 2024

Demand for DoC crude

Demand for DoC crude (i.e. crude from countries participating in the Declaration of Cooperation) is revised down by 0.1 mb/d from the previous assessment to stand at 43.1 mb/d in 2024, around 0.9 mb/d higher than the estimate for 2023.

Table 10 - 1: DoC supply/demand balance for 2024*, mb/d

Change 2023 1Q24 2Q24 3Q24 4Q24 2024 2024/23 102.2 103.5 103.8 104.9 105.6 104.5 2.2 (a) World oil demand Non-DoC liquids production 51.7 52.6 53.0 53.0 53.4 53.0 1.2 DoC NGL and non-conventionals 8.2 8.4 8.3 8.3 8.3 8.3 0.1 (b) Total non-DoC liquids production and DoC NGLs 60.0 61.0 61.3 61.3 61.7 61.3 1.3 42.2 42.5 42.5 43.1 Difference (a-b) 43.6 43.9 0.9 DoC crude oil production 42.0 41.2 40.9 Balance -0.3 -1.3 -1.6

Note: * 2024 = Forecast. Totals may not add up due to independent rounding.

Source: OPEC.

Balance of supply and demand in 2025

Demand for DoC crude

Demand for DoC crude in 2025 is revised down by 0.1 mb/d from the previous assessment to stand at 43.9 mb/d, around 0.7 mb/d higher than the estimate for 2024.

Table 10 - 2: DoC supply/demand balance for 2025*, mb/d

							Change
	2024	1Q25	2Q25	3Q25	4Q25	2025	2025/24
(a) World oil demand	104.5	105.3	105.5	107.0	107.4	106.3	1.8
Non-DoC liquids production	53.0	54.0	53.7	54.0	54.6	54.1	1.1
DoC NGL and non-conventionals	8.3	8.4	8.4	8.3	8.4	8.4	0.0
(b) Total non-DoC liquids production and DoC NGLs	61.3	62.4	62.1	62.3	63.0	62.5	1.1
Difference (a-b)	43.1	42.9	43.4	44.7	44.4	43.9	0.7

Note: * 2025 = Forecast. Totals may not add up due to independent rounding.

Table 11 - 1: World oil demand and supply balance, mb/d

World demand Americas 24.0 24.7 25.0 24.5 25.3 25.5 25.4 25.2 24.5 25.4 25.0 24.7 25.0 24.5 25.3 25.5 25.4 25.2 24.5 25.4 25.0 20.7 20.7 20.9 20.9 20	World oil demand and supply													
Americas 240 24.7 25.0 24.5 25.3 25.5 25.4 25.2 24.5 25.4 25.6 25.4 25.0 20.7 20.7 20.7 20.8 20.5 20.0 20.7 20.9		2021	2022	2023	1Q24	2Q24	3Q24	4Q24	2024	1Q25	2Q25	3Q25	4Q25	2025
Commercial Commercial Series 19.8 20.2 20.4 19.9 20.7 20.7 20.8 20.5 20.0 20.7 20.7 20.9 20.5 20.5 20.0 20.7 20.7 20.9 20.5 20.5 20.0 20.7 20.7 20.9 20.5 20.5 20.0 20.7 20.7 20.9 20.5 20.5 20.0 20.7 20.7 20.9 20.5 20.5 20.0 20.7 20.7 20.9 20.5 20.5 20.5 20.7 20.7 20.9 20.5 20.5 20.5 20.7 20.7 20.9 20.5 20.5 20.5 20.5 20.5 20.7 20.7 20.9 20.5 20.5 20.5 20.5 20.7														
Europe 13.1 13.6 13.4 13.0 13.6 13.7 13.4 13.4 13.0 13.6 13.8 13.4 17.7 74. 72.0 74. 72.0 75.6 6.9 70.7 74. 72.0 75.6 6.9 70.7 74. 72.0 75.6 6.9 70.7 74. 72.0 75.6 6.9 70.7 74. 72.0 75.6 6.9 70.7 74. 72.0 75.6 75.0														25.2
Asia Pacific 7.3 7.3 7.3 7.5 7.6 6.9 7.0 7.4 7.2 7.6 6.9 7.0 7.4 7.5 7														20.6
Total DECD China	·													13.5
Ching 15.5 15.0 16.4 16.8 16.9 17.3 17.4 17.0 17.2 17.3 17.8 17.8 18.1														7.2
India														45.9
Other Funcion														17.5
Latin America 6, 2, 6, 4, 6, 7, 6, 8, 6, 9, 7, 0, 6, 9, 6, 9, 6, 9, 7, 1, 7, 2, 7, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,														5.8
Middle East														9.9
Africa														7.1
Russia 3.6 3.8 3.8 3.9 3.8 4.0 4.1 4.0 4.0 4.0 3.9 4.0 4.1 1 Other Europe														9.3
Other Europe														4.7
Other Europe									-					4.0
Total Mon-DECD 52,8 54,1 56,6 58,4 58,0 58,6 59,4 50,5 60,1 59,6 60,5 61,1 6 6 6 70,0 107,4 10 70,4 70,4														1.3
	·													0.8
Non-Doc liquids production Non-Doc liquids Non-D														60.4
Namericas	(a) Total world demand												107.4	106.3
Americas	Y-o-y change	5.9	2.5	2.6	2.3	2.0	2.5	2.1	2.2	1.8	1.7	2.1	1.8	1.8
Americas	Non-DoC liquids production													
of which US 18.1 19.3 20.9 21.0 21.7 21.4 21.5 21.4 21.8 21.8 21.8 21.9 22.1 2 Europe 3.8 3.6 3.7 3.6 3.7 3.8 3.7 3.9 3.7 3.7 3.8 3.7 3.9 3.7 3.7 3.8 3.7 3.9 3.7 3.7 3.8 3.7 3.9 3.7 3.7 3.8 3.7 3.9 3.7 3.7 3.8 3.7 3.9 3.7 3.7 3.8 3.7 3.9 3.7 3.7 3.8		23.5	24.9	26.6	26.9	27.4	27.4	27.6	27.3	27.9	27.7	28.0	28.4	28.0
Asia Pacific 0.5 0.5 0.4 0.5 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4	of which US	18.1	19.3	20.9	21.0	21.7	21.4	21.5	21.4	21.8	21.8	21.9	22.1	21.9
Asia Pacific 0.5 0.5 0.4 0.5 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4														3.8
China	Asia Pacific	0.5	0.5	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
India	Total OECD	27.8	29.0	30.7	31.0	31.5	31.5	31.8	31.5	32.2	31.9	32.1	32.6	32.2
India														4.5
Other Asia														0.8
Latin America 6.0 6.3 7.0 7.3 7.2 7.4 7.5 7.3 7.5 7.5 7.6 7.8 7.8 Middle East 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0														1.6
Middle East 2.0 4.0 <th< td=""><td>Latin America</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>7.6</td></th<>	Latin America													7.6
Africa 2.3 2.3 2.2 2.2 2.3 2.2 2.3 2.2 2.3 2.2 2.3 2.2 2.3 2.2 2.3 2.2 2.3 2.3														2.0
Other Eurasia 0.4 0.1 <														2.3
Other Europe 0.1 0.0 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>0.4</td></t<>														0.4
Total Non-OECD									-					0.1
Total Non-DoC production	·													19.3
Processing gains 2.3 2.4 2.5 2.5 2.5 2.5 2.5 2.5 2.6														51.5
Total Non-DoC liquids production	·													2.6
production 47.7 49.3 51.7 52.6 53.0 53.0 53.4 53.0 54.0 53.7 54.0 54.6 5 Doc NGLs 7.6 8.0 8.2 8.4 8.3 8.3 8.3 8.3 8.4 8.4 8.3 8.4 (b) Total Non-Doc liquids production and Doc NGLs 55.3 57.3 60.0 61.0 61.3 61.3 61.7 61.3 62.4 62.1 62.3 63.0 6 Y-o-y change 0.6 2.0 2.7 2.0 2.0 1.1 0.4 1.3 1.4 0.8 1.0 1.3 OPEC crude oil production (secondary sources) 25.2 27.7 27.0 26.6 26.6 No.1 1.4 0.8 1.0 1.3 Non-OPEC Doc crude production 15.0 15.1 15.0 14.7 14.2 40.9 14.7 14.2 40.9 14.7 14.2 40.9 14.7 14.2 40.9 14.7 14.2 40.9 <td></td>														
Doc NGLs 7.6 8.0 8.2 8.4 8.3 8.3 8.3 8.3 8.4 8.4 8.3 8.4 4.5 4.1 8.1	•	47.7	49.3	51.7	52.6	53.0	53.0	53.4	53.0	54.0	53.7	54.0	54.6	54.1
(b) Total Non-DoC liquids production and DoC NGLs	•													8.4
Production and Doc NGLs 55.3 57.3 60.0 61.0 61.3 61.3 61.7 61.3 62.4 62.1 62.3 63.0 63.0 64.0 64.0 64.0 64.1 62.1 62.3 63.0 64.0 64.0 64.0 64.0 64.1 62.1 62.3 63.0 64			0.0	0.2	0	0.0	0.0	0.0	0.0	0.1	0	0.0	0	0
Y-o-y change 0.6 2.0 2.7 2.0 2.0 1.1 0.4 1.3 1.4 0.8 1.0 1.3 OPEC crude oil production (secondary sources) 25.2 27.7 27.0 26.6 26.6 8 8 8 1.0 1.3 1.4 0.8 1.0 1.3 1.3 1.4 0.8 1.0 1.3 1.3 1.3 1.0 1.3 1.4 0.8 1.0 1.3 1.3 1.3 1.4 0.8 1.0 1.3 1.3 1.3 1.4 0.8 1.0 1.3 1.4 1.2 1.2 1.4 1.4 1.2 1.4 1.2 1.4 1.4 1.2 1.0 1.2 1	•	55.3	57.3	60.0	61.0	61.3	61.3	61.7	61.3	62.4	62.1	62.3	63.0	62.5
OPEC crude oil production (secondary sources) 25.2 27.7 27.0 26.6 26.6 26.6 Non-OPEC DoC crude production 15.0 15.1 15.0 14.7 14.2 DoC crude oil production 40.3 42.8 42.0 41.2 40.9 Total liquids production Balance (stock change and miscellaneous) -1.6 0.5 -0.3 -1.3 -1.6 OECD closing stock levels, mb -1.6 0.5 -0.3 -1.3 -1.6 OPECD closing stock levels, mb 2,652 2,781 2,778 2,756 SPR SPR 1,484 1,214 1,207 1,219 Total 4,136 3,995 3,984 3,975 Oil-on-water 1,348 1,546 1,438 1,460 Days of forward consumption in OECD, days 6 61 61 60 SPR 33 27 26 27 Total 91 88 87 87														1.1
(secondary sources) 25.2 27.7 27.0 26.6 26.6 Non-OPEC DoC crude production 15.0 15.1 15.0 14.7 14.2 DoC crude oil production 40.3 42.8 42.0 41.2 40.9 Total liquids production 95.6 100.1 102.0 102.2 102.2 Balance (stock change and miscellaneous) -1.6 0.5 -0.3 -1.3 -1.6 OECD closing stock levels, mb -1.6 0.5 -0.3 -1.3 -1.6 SPR 1,484 1,214 1,207 1,219 Total 4,136 3,995 3,984 3,975 Oil-on-water 1,348 1,546 1,438 1,460 Days of forward consumption in OECD, days														
Non-OPEC DoC crude production	•	25.2	27 7	27.0	26.6	26.6								
production 15.0 15.1 15.0 14.7 14.2 DoC crude oil production 40.3 42.8 42.0 41.2 40.9 Total liquids production 95.6 100.1 102.0 102.2 102.2 Balance (stock change and miscellaneous) -1.6 0.5 -0.3 -1.3 -1.6 OECD closing stock levels, mb -1.6 2,652 2,781 2,778 2,756 SPR 1,484 1,214 1,207 1,219 Total 4,136 3,995 3,984 3,975 Oil-on-water 1,348 1,546 1,438 1,460 Days of forward consumption in OECD, days Commercial onland stocks 58 61 61 60 SPR 33 27 26 27 Total 91 88 87 87					_0.0	20.0								
DoC crude oil production		15.0	15 1	15.0	14 7	14 2								
Total liquids production 95.6 100.1 102.0 102.2 102.2 Balance (stock change and miscellaneous) -1.6 0.5 -0.3 -1.3 -1.6 OECD closing stock levels, mb Commercial 2,652 2,781 2,778 2,756 SPR 1,484 1,214 1,207 1,219 Total 4,136 3,995 3,984 3,975 Oil-on-water 1,348 1,546 1,438 1,460 Days of forward consumption in OECD, days Commercial onland stocks 58 61 61 60 SPR 33 27 26 27 Total 91 88 87 87														
Balance (stock change and miscellaneous) OECD closing stock levels, mb Commercial 2,652 2,781 2,778 2,756 SPR 1,484 1,214 1,207 1,219 Total 4,136 3,995 3,984 3,975 Oil-on-water 1,348 1,546 1,438 1,460 Days of forward consumption in OECD, days 58 61 61 60 SPR 33 27 26 27 Total 91 88 87 87	•													
miscellaneous) -1.6 0.5 -0.3 -1.3 -1.6 OECD closing stock levels, mb Commercial 2,652 2,781 2,778 2,756 SPR 1,484 1,214 1,207 1,219 Total 4,136 3,995 3,984 3,975 Oil-on-water 1,348 1,546 1,438 1,460 Days of forward consumption in OECD, days Commercial onland stocks 58 61 61 60 SPR 33 27 26 27 Total 91 88 87 87		00.0		102.0	.02.2									
OECD closing stock levels, mb Commercial 2,652 2,781 2,778 2,756 SPR 1,484 1,214 1,207 1,219 Total 4,136 3,995 3,984 3,975 Oil-on-water 1,348 1,546 1,438 1,460 Days of forward consumption in OECD, days Commercial onland stocks 58 61 61 60 SPR 33 27 26 27 Total 91 88 87 87	,	-1 6	0.5	-0.3	-13	-16								
mb Commercial 2,652 2,781 2,778 2,756 SPR 1,484 1,214 1,207 1,219 1,219 1,219 3,975 3,984 3,975 3,975 3,975 3,975 3,480 1,480 1,460 4,436 1,438 1,460 <th< td=""><td>,</td><td>7.0</td><td>0.0</td><td>0.0</td><td>7.0</td><td>7.0</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>	,	7.0	0.0	0.0	7.0	7.0								
Commercial 2,652 2,781 2,778 2,756 SPR 1,484 1,214 1,207 1,219 Total 4,136 3,995 3,984 3,975 Oil-on-water 1,348 1,546 1,438 1,460 Days of forward consumption in OECD, days 61 61 60 Commercial onland stocks 58 61 61 60 SPR 33 27 26 27 Total 91 88 87 87														
SPR 1,484 1,214 1,207 1,219 Total 4,136 3,995 3,984 3,975 Oil-on-water 1,348 1,546 1,438 1,460 Days of forward consumption in OECD, days 58 61 61 60 SPR 33 27 26 27 Total 91 88 87 87		2 652	2 781	2 778	2 756									
Total 4,136 3,995 3,984 3,975 Oil-on-water 1,348 1,546 1,438 1,460 Days of forward consumption in OECD, days Commercial onland stocks 58 61 61 60 SPR 33 27 26 27 Total 91 88 87 87														
Oil-on-water 1,348 1,546 1,438 1,460 Days of forward consumption in OECD, days Commercial onland stocks 58 61 61 60 SPR 33 27 26 27 Total 91 88 87 87														
Days of forward consumption in OECD, days Commercial onland stocks 58 61 61 60 SPR 33 27 26 27 Total 91 88 87 87		•	-	,	-									
in OECD, days Commercial onland stocks 58 61 61 60 SPR 33 27 26 27 Total 91 88 87 87		1,340	1,040	1,+30	1,-100									
Commercial onland stocks 58 61 61 60 SPR 33 27 26 27 Total 91 88 87 87														
SPR 33 27 26 27 Total 91 88 87 87		EO	61	61	60									
Total 91 88 87 87														
wemo rems		91	88	8/	87									
(a) - (b) 41.9 42.4 42.2 42.5 42.5 43.6 43.9 43.1 42.9 43.4 44.7 44.4 4		44.0	10.	40.0	40.5	40.5	40.0	40.0	40.4	10.0	40-4	44-	44-4-	43.9

Note: Totals may not add up due to independent rounding.

Global oil demand continues to slow as EVs and economic headwinds temper growth

Oil Market Report - July 2024

About this report

The IEA Oil Market Report (OMR) is one of the world's most authoritative and timely sources of data, forecasts and analysis on the global oil market – including detailed statistics and commentary on oil supply, demand, inventories, prices and refining activity, as well as oil trade for IEA and selected non-IEA countries.

Highlights

- World oil demand continues to decelerate, with 2Q24 growth easing to 710 kb/d year-on-year the slowest quarterly increase since 4Q22. Chinese consumption contracted, as the country's post-pandemic rebound has run its course. Global gains are forecast to average just below 1 mb/d in 2024 and 2025, as subpar economic growth, greater efficiencies and vehicle electrification act as headwinds.
- Global supply rose 150 kb/d to 102.9 mb/d in June as field maintenance eased and biofuels rose, offsetting a significant drop in Saudi flows. Solid monthly gains pushed 2Q24 output 910 kb/d higher q-o-q. Growth of 770 kb/d is seen for 3Q24 with non-OPEC+ providing 600 kb/d of the gains. Annual increases of 770 kb/d are forecast in 2024 with gains of 1.8 mb/d next year.
- Global refinery throughputs are forecast to rise by 950 kb/d to 83.4 mb/d in 2024, and by 630 kb/d to 84 mb/d next year. Weak demand and poor margins pressured Chinese and European crude processing in May. Margins declined in June in the Atlantic Basin and are close to multi-year lows. In Asia, they rebounded modestly in June, as run cuts eased regional crude market tensions.
- Crude oil prices recovered from six-month lows in June, with Brent futures rising by \$5/bbl to \$86/bbl. Falling crude stocks, investor short covering and renewed Middle East geopolitical tensions contributed to the price strength, with fund positions recovering from historically low levels.
- Global observed oil inventories rose for a fourth consecutive month in May, by 23.9 mb. Offshore inventories drew by 17.3 mb while on land stocks built by 41.3 mb to a 30-month high. OECD industry stocks rose by 27.8 mb to 2 845 mb but remained 69 mb below their five-year average. Preliminary data show global oil stocks falling by 18.1 mb in June, dominated by crude while products built.

Summer heat

Benchmark crude oil prices bounced back from six-month lows over the course of June after OPEC+ officials stated that unwinding voluntary production cuts would depend on market conditions – and as geopolitical risks remained high. ICE Brent futures rose by \$5/bbl to \$86/bbl by end-month.

Oil prices increased in June despite mounting concerns over the health of the Chinese economy and slowing oil demand growth. Global observed inventories were up in May for the

fourth month in a row, reaching their highest level since August 2021. Offshore inventories moved ashore at a brisk pace, with oil on water down sharply, while on land stocks rose to a 30-month high ahead of the seasonal uptick in refinery activity. OECD industry stocks built for a second consecutive month after having declined for the previous six months. Preliminary data suggest global oil stocks fell 18.1 mb in June, led by a 1 mb/d draw in crude.

World oil demand growth slowed to only 710 kb/d in 2Q24, its lowest quarterly increase in over a year. Oil consumption in China, long the engine of global oil demand growth, contracted in both April and May, and is now assessed marginally below year earlier levels in 2Q24. That stands in stark contrast to annual gains of 1.5 mb/d in 2023 and 740 kb/d in 1Q24. Demand for industrial fuels and petrochemical feedstocks was particularly weak. By contrast, second-quarter delivery data of gasoil and naphtha for OECD economies came in higher than expected, potentially signalling a budding recovery in Europe's ailing manufacturing sector. While the bounce temporarily pushed quarterly OECD demand growth back into positive territory, non-OECD countries will account for all this year's global gains. World oil demand growth expectations for the 2024 and 2025 are largely unchanged at 970 kb/d and 980 kb/d, respectively.

At the same time, global oil supply trended higher, with 2Q24 production up 910 kb/d from 1Q24, led by the United States. Output is forecast to rise by another 770 kb/d in 3Q24 with non-OPEC+ providing 600 kb/d of the gains. For 2024 as a whole, global oil supply growth is forecast to average 770 kb/d, which will boost oil supply to a record 103 mb/d. Non-OPEC+ output is expected to rise by 1.5 mb/d, while OPEC+ production will fall by 740 kb/d year-on-year if existing voluntary cuts are maintained. Global supply growth in 2025 is projected at a much stronger 1.8 mb/d, with non-OPEC+, mainly in the United States, Canada, Guyana and Brazil, leading gains for a third consecutive year, adding 1.5 mb/d.

In early June, OPEC+ laid out a roadmap for unwinding extra voluntary supply reductions of up to 2.2 mb/d from 4Q24 through 3Q25. Given the bloc's assurances that the production increase can be paused or reversed subject to market conditions, we will adjust our OPEC+ supply numbers when such a decision is confirmed. The OPEC+ Joint Ministerial Monitoring Committee is meanwhile due to meet on 1 August to review global oil market conditions and production levels. Our current non-OPEC+ supply and global demand forecasts show the call on OPEC+ crude at 42.2 mb/d in 3Q24 and 41.8 mb/d in 4Q24 – roughly 800 kb/d and 400 kb/d above its June output, respectively. For next year, the call on OPEC+ crude tumbles to 41.1 mb/d as demand growth continues to slow and non-OPEC+ output continues to expand. After the hot summer, cooler trends are set to prevail.

OPEC+ crude oil production¹

million barrels per day

	May 2024 Supply	Jun 2024 Supply	May Prod vs Target	Jun-2024 Implied Target ¹	Sustainable Capacity ²	Eff Spare Cap vs Jun ³
Algeria	0.9	0.91	0.0	0.91	0.99	0.08
Congo	0.26	0.26	-0.02	0.28	0.27	0.01
Equatorial Guinea	0.06	0.05	-0.02	0.07	0.06	0.01
Gabon	0.22	0.22	0.05	0.17	0.22	0.0
Iraq	4.3	4.26	0.26	4.0	4.87	0.61
Kuwait	2.49	2.48	0.07	2.41	2.88	0.4
Nigeria	1.28	1.32	-0.18	1.5	1.42	0.1
Saudi Arabia	9.03	8.85	-0.13	8.98	12.11	3.26
UAE	3.25	3.28	0.37	2.91	4.28	1.0
Total OPEC-9 ⁴	21.79	21.63	0.41	21.22	27.1	5.47
ran ⁵	3.35	3.35			3.8	
Libya ⁵	1.19	1.19			1.23	0.04
Venezuela ⁵	0.88	0.89			0.87	-0.02
Total OPEC	27.21	27.06			33.0	5.5
Azerbaijan	0.46	0.49	-0.06	0.55	0.49	-0.0
Kazakhstan	1.49	1.57	0.11	1.47	1.62	0.05
Mexico ⁶	1.56	1.58			1.6	0.02
Oman	0.76	0.76	0.0	0.76	0.85	0.09
Russia	9.24	9.22	0.24	8.98	9.76	
Others 7	0.74	0.75	-0.12	0.87	0.86	0.1
Total Non-OPEC	14.25	14.38	0.17	12.62	15.17	0.26
OPEC+ 18 in Nov 2022 deal ⁵	34.48	34.43	0.58	33.85	40.67	5.71
otal OPEC+	41.46	41.44			48.17	5.76

^{1.} Includes extra voluntary curbs where announced. 2. Capacity levels can be reached within 90 days and sustained for an extended period. 3. Excludes shut in Iranian, Russian crude. 4. Angola left OPEC effective 1 Jan 2024. 5. Iran, Libya, Venezuela exempt from cuts. 6. Mexico excluded from OPEC+ compliance. 7. Bahrain, Brunei, Malaysia, Sudan and South Sudan.

IEA World Oil Supply and Demand Forecasts: Summary (Table)

2024-07-11 08:00:00.2 GMT

By Kristian Siedenburg

(Bloomberg) -- Following is a summary of world oil supply and demand forecasts from the International Energy Agency in Paris:

	4Q	3Q	2Q	1Q	4Q	3Q	2Q	1Q		
	2025	2025	2025	2025	2024	2024	2024	2024	2025	2024
					Dem	and				
Total Demand	104.9	105.1	103.7	102.3	103.9	104.1	102.9	101.3	104.0	103.1
Total OECD	45.8	45.9	45.3	44.8	45.9	46.0	45.6	44.8	45.4	45.6
Americas	25.1	25.5	25.0	24.5	25.1	25.4	25.0	24.4	25.0	25.0
Europe	13.2	13.6	13.4	12.8	13.3	13.6	13.6	12.8	13.2	13.3
Asia Oceania	7.4	6.9	6.9	7.6	7.6	7.0	7.0	7.5	7.2	7.3
Non-OECD countries	59.2	59.2	58.5	57.5	58.0	58.2	57.3	56.5	58.6	57.5
FSU	5.0	5.1	4.9	4.8	5.0	5.0	4.8	4.8	5.0	4.9
Europe	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
China	17.6	17.6	17.2	16.9	17.2	17.3	16.8	16.5	17.3	17.0
Other Asia	15.3	14.8	15.3	15.2	14.9	14.4	14.9	14.9	15.1	14.8
Americas	6.7	6.7	6.6	6.4	6.6	6.6	6.5	6.3	6.6	6.5
Middle East	9.2	9.8	9.3	8.9	9.0	9.6	9.1	8.7	9.3	9.1
Africa	4.6	4.5	4.5	4.5	4.5	4.4	4.4	4.4	4.5	4.4
		Supply								
Total Supply	n/a	n/a	n/a	n/a	n/a	n/a	102.7	101.8	n/a	n/a
Non-OPEC	72.8	72.4	71.9	70.8	71.0	70.7	70.1	69.4	72.0	70.3
Total OECD	32.9	32.5	32.6	32.3	32.3	31.9	31.7	31.3	32.6	31.8
Americas	29.1	28.8	28.8	28.5	28.6	28.4	28.1	27.6	28.8	28.2
Europe	3.4	3.2	3.3	3.3	3.2	3.0	3.2	3.3	3.3	3.2
Asia Oceania	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.5
Non-OECD	34.0	33.6	33.3	33.3	33.1	32.7	32.5	33.0	33.6	32.8
ESII	13.8	13.8	13.7	13.6	13.5	13.5	13.5	13.8	13.7	13.5

Total Supply	n/a	n/a	n/a	n/a	n/a	n/a	102.7	101.8	n/a	n/a
Non-OPEC	72.8	72.4	71.9	70.8	71.0	70.7	70.1	69.4	72.0	70.3
Total OECD	32.9	32.5	32.6	32.3	32.3	31.9	31.7	31.3	32.6	31.8
Americas	29.1	28.8	28.8	28.5	28.6	28.4	28.1	27.6	28.8	28.2
Europe	3.4	3.2	3.3	3.3	3.2	3.0	3.2	3.3	3.3	3.2
Asia Oceania	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.5
Non-OECD	34.0	33.6	33.3	33.3	33.1	32.7	32.5	33.0	33.6	32.8
FSU	13.8	13.8	13.7	13.6	13.5	13.5	13.5	13.8	13.7	13.5
Europe	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	4.4	4.4	4.5	4.5	4.4	4.3	4.4	4.4	4.4	4.4
Other Asia	2.5	2.5	2.6	2.6	2.6	2.6	2.7	2.7	2.6	2.6
Americas	7.3	7.0	6.7	6.7	6.7	6.6	6.4	6.5	6.9	6.5
Middle East	3.2	3.2	3.1	3.1	3.1	3.1	3.1	3.1	3.2	3.1
Africa	2.7	2.7	2.7	2.6	2.6	2.5	2.5	2.5	2.7	2.5
Processing Gains	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.3	2.4	2.4
Total OPEC	n/a	n/a	n/a	n/a	n/a	n/a	32.7	32.4	n/a	n/a
Crude	n/a	n/a	n/a	n/a	n/a	n/a	27.1	26.9	n/a	n/a
Natural gas										
liquids NGLs	5.7	5.7	5.7	5.6	5.6	5.6	5.5	5.5	5.7	5.6
Call on OPEC crude										
and stock change *	26.4	27.1	26.2	25.9	27.3	27.8	27.3	26.3	26.4	27.2

NOTE: Figures are in million of barrels per day. (*) equals total demand minus non-OPEC supply and OPEC natural gas liquids.

IEA changed the way it measures OPEC supply, adopting the industry-standard approach of counting most of Venezuela's Orinoco heavy oil as "crude oil."

SOURCE: International Energy Agency

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IEA: June Crude Oil Production in OPEC Countries (Table)

2024-07-11 08:00:00.4 GMT

By Kristian Siedenburg

(Bloomberg) -- Following is a summary of oil production in

OPEC countries from the International Energy Agency in Paris:

	June	May	June
	2024	2024	MoM
Total OPEC	27.06	27.21	-0.15
Total OPEC9	21.63	21.79	-0.16
Algeria	0.91	0.90	0.01
Congo	0.26	0.26	0.00
Equatorial Guinea	0.05	0.06	-0.01
Gabon	0.22	0.22	0.00
Iraq	4.26	4.30	-0.04
Kuwait	2.48	2.49	-0.01
Nigeria	1.32	1.28	0.04
Saudi Arabia	8.85	9.03	-0.18
UAE	3.28	3.25	0.03
Iran	3.35	3.35	0.00
Libya	1.19	1.19	0.00
Venezuela	0.89	0.88	0.01

NOTE: Figures are in million of barrels per day. Monthly level change calculated by Bloomberg. Production data excludes condensates.

OPEC9 excludes Iran, Libya and Venezuela.

SOURCE: International Energy Agency

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IEA REPORT WRAP: Iran Crude Output at 6-Year High; China Storage

2024-07-11 09:26:57.695 GMT

By Rachel Graham

(Bloomberg) -- Global oil demand growth slowed to its

weakest in more than a year last quarter as the post-pandemic

rebound in China fades. Iran's crude output rose to a six-year high in June and the nation will lead supply growth along with the US this year.

- * The following stories were published Thursday from the IEA's monthly Oil Market Report:
- * Global Oil Demand Growth Slows Further as China Cools
- ** Global oil demand growth slowed last quarter to its weakest in more than a year
- ** China's post-Covid rebound "has run its course"
- * IEA Revises Up Non-OECD Crude Inventories on Build From China
- ** Non-OECD crude oil inventories at the end of May have been revised up sharply, with majority of the build coming from China
- ** Reflects better coverage of oil tankers from its data contributor
- ** Since the beginning of 2017, China's crude storage capacity has expanded by 45%, with a further 10% increase expected by 2027

OPEC:

- * Iran's Crude Oil Production Rises to Six-Year High
- ** For a second year running, the US and Iran look set to lead the world's supply growth, the IEA says
- * OPEC Crude Output Fell 150k B/D Last Month on Saudi Curbs
- * Also see table of IEA June production

SUPPLY AND DEMAND:

- * IEA World Oil Supply and Demand Forecasts
- ** Table shows quarterly supply and demand forecasts by region and by quarter
- * Revisions to IEA World Oil Supply/Demand Key Forecasts
- ** 2024 global oil output to rise 770k b/d to record 103m
- *** 2025 global oil output to rise 1.8m b/d, led by non-OPEC+
- ** 2024 global oil demand forecast at 103.1m b/d, growing by 970k b/d from last year
- *** 2025 global oil demand seen at 104m b/d, growing by 980k b/d

OTHER:

- * Russian Oil-Export Revenues Drop to 4-Month Low as Flows Decline
- ** June earnings from oil exports fell to \$16.7 billion
- * West African Crude Differentials Gained in Late June
- ** West African crude differentials rebounded by the end of June

as European demand improved

- * Oil Refiners at Risk of Run Cuts on Plentiful Fuel Supply
- ** Refining margins have fallen in recent months partly as OPEC+ cuts and North Sea field maintenance squeeze the crude market ** "With ongoing signs of oversupplied product markets, the specter of additional run cuts for less sophisticated refineries remains a risk to higher refinery crude demand"

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IEA World Oil Supply/Demand Key Forecasts

2024-07-11 08:00:00.5 GMT

By Kristian Siedenburg

(Bloomberg) -- World oil demand 2025 forecast was revised to 104.0m b/d from 104.2m b/d in Paris-based Intl Energy Agency's latest monthly report.

- * 2024 world demand was revised to 103.1 from 103.2m b/d
- * Demand change in 2025 est. 0.9% y/y or 0.98m b/d
- * Non-OPEC supply 2025 was revised to 72.0m b/d from 71.9m b/d
- * Call on OPEC crude 2025 was revised to 26.4m b/d from 26.7m b/d
- * Call on OPEC crude 2024 was revised to 27.2 m b/d from 27.4m b/d
- ** OPEC crude production in June fell by 150k b/d on the month to 27.1m b/d
- * Detailed table: FIFW NSN SGG56TGFLIIO <GO>
- * NOTE: Fcasts based off IEA's table providing one decimal point

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Global Oil Demand Growth Slows Further as China Cools, IEA Says

2024-07-11 08:00:00.10 GMT

By Grant Smith

(Bloomberg) -- Global oil demand growth slowed to its weakest in more than a year last quarter as the post-pandemic rebound in China fades, the International Energy Agency said. World consumption increased by just 710,000 barrels a day in the second quarter — the smallest gain since late 2022 — while China slipped into a marginal contraction, the agency said in its monthly report on Thursday. For 2024 and 2025, global demand remains on track to grow each year by less than 1 million barrels a day.

Slackening fuel use is being comfortably met by a flood of new supply from the US and other parts of the Americas, according to the IEA. As a result, global observed inventories swelled for four months through May to reach their highest since mid-2021.

"World oil demand continues to decelerate," said the Parisbased agency, which advises most major economies. "Chinese consumption contracted, as the country's post-pandemic rebound has run its course."

Still, most other forecasters in the oil industry — from trading houses to Wall Street banks — see a stronger picture of consumption, and crude prices continue to trade near \$85 a barrel in London. A seasonal ramp up in demand for driving fuels is helping whittle stockpiles in the US, still the biggest consumer.

The IEA's estimates suggest that strength may not last.
Global inventories should be broadly balanced in the fourth
quarter, even if the OPEC+ alliance led by Saudi Arabia reneges
on plans to restore production, according to the agency. Markets
should tip into surplus for most of next year, it projects.
"After the hot summer, cooler trends are set to prevail,"
the IEA said.

World demand growth of just below 1 million barrels a day, or less than 1%, for this year and next comes as "subpar economic growth, greater efficiencies and vehicle

electrification act as headwinds."

In longer-term reports, the IEA has predicted that world oil demand will stop growing before the end of the decade as countries shift away from fossil fuels in an effort to avoid catastrophic climate change.

Its outlook has been criticized by many in the industry, but received support on Wednesday from oil major BP Plc, which forecast that the plateau for consumption could arrive as early as next year.

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Russian Oil-Export Revenues Drop to 4-Month Low as Flows Decline

2024-07-11 08:00:00.7 GMT

By Bloomberg News

(Bloomberg) -- Russia's revenues from oil exports fell to the lowest since February amid slightly lower shipment volumes, according to the International Energy Agency.

The nation earned \$16.7 billion from oil exports in June, down 1.2% from the month before, the Paris-based agency said in its monthly report published Thursday. Still, the nation's oil-export earnings jumped nearly 23% from a year before.

The monthly revenue decline came as Russian crude oil and petroleum-product exports in June fell to 7.6 million barrels a day from 7.7 million barrels a day the month before, the IEA data show.

The average weighted price of the nation's crude in June slightly increased to \$70.39 per barrel from \$70.05 in May, yet the higher prices did not offset lower export flows. Russian barrels on average continued to trade well above the \$60 price cap imposed by the Group of Seven industrialized countries in response to the Kremlin's invasion in Ukraine.

The oil industry is a key source of revenue for the Russian

budget, burdened with higher military and social spending amid the invasion of Ukraine that is now well into its third year. But the steady decline in Russia's oil export-revenue volumes that has been going on since March, as estimated by the IEA, does not signal an overall lower flow of money into the Kremlin's coffers.

Russia's oil taxes, which generate revenue for the budget, are mainly based on crude production volumes, the price of the nation's barrels and the ruble exchange rate to the dollar. Revenues can fluctuate significantly from month to month, in part reflecting the schedule for some fiscal payments. In June, the oil taxes brought in around \$6.7 billion for the Russian budget, almost 50% more than a year ago, according to the Finance Ministry's data. Compared to May, revenues declined 6.6% due to a lower pricing of Urals, Russia's key export blend.

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OPEC Crude Output Fell 150k B/D Last Month on Saudi Curbs: IEA

2024-07-11 08:00:00.1 GMT

By Amanda Jordan

(Bloomberg) -- OPEC's crude output in June dropped 150k b/d from a month earlier to 27.06m b/d, pulled lower by Saudi Arabia, the IEA said in its monthly market report.

- * Saudi production fell 180k b/d to 8.85m b/d
- * UAE output inched up to 3.28m b/d, above its OPEC+ quota
- * Iraqi production slid 40k b/d to 4.26m b/d, also above its

OPEC+ target

- * Kuwaiti volumes slipped 10k b/d to 2.48m b/d
- * Iran exempt from OPEC+ cuts held output steady at 3.35m

b/d, a six-year high

- * Libyan production also exempt was unchanged at 1.19m b/d
- * Output in Nigeria rose 40k b/d to 1.32m b/d
- * Algerian volumes edged up to 910k b/d
- * Output in Venezuela climbed to 890k b/d
- * NOTE: OPEC released its own figures for June on Wednesday, estimating its 12 members pumped 26.57m b/d

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Iran's Crude Oil Production Rises to Six-Year High, IEA Says

2024-07-11 08:00:18.341 GMT

By Eleanor Thornber

(Bloomberg) -- Iran is among leaders in raising global oil supply, with output at a six-year high in June, according to the IEA

- * "For a second year running, the US and Iran look set to lead the world's supply growth"
- * According to IEA estimates, Iran pumped about 3.35m b/d in June
- ** Iran has exported about 1.5m-1.6m b/d of crude and condensates this year, mainly to China, vs 1.3m b/d last year
- ** See Bloomberg's June tanker tracker for Iran here
- * Iran's National Iranian Oil Co. has signed a \$1.25 billion contract to develop the 60k b/d Changuleh oil field, according to the report
- * It has also signed a \$435 million deal to develop the onshore Band Karkheh field
- * READ: (July 6) Iran Elects Reformist President Keen to Revive Nuclear Deal
- --With assistance from Alaric Nightingale.

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IEA Revises Up Non-OECD Crude Inventories on Build From China

2024-07-11 08:00:00.6 GMT

By Sherry Su

(Bloomberg) -- Non-OECD crude oil inventories at the end of May have been revised up sharply, with majority of the build coming from China, the IEA said in its monthly Oil Market Report, mainly due to better coverage of oil tanks from its data contributor.

- * Non-OECD crude oil inventories have been revised up by 25.3m bbl to 1.84 billion bbl at the end of May 2024, equivalent to a build of 60k b/d since the end of 2023, IEA said citing Kayrros ** The revision came mainly from China (+21.1m bbl), as well as Iran (+2.5m bbl)
- * China is rapidly building crude oil storage facilities. Since the beginning of 2017, crude storage capacity has expanded by 45%, with a further 10% increase expected by 2027
- ** Most expansions are for commercial storage, but some tanks are likely contracted by the government for the Strategic Petroleum Reserves, classified as "Enterprise SPR" by Kayrros
- ** The SPR inventories, including the Enterprise SPR, reached an all-time high of 521m bbl in June
- ** READ: July 4, China Plans New Round of SPR Filling from July to March: Vortexa

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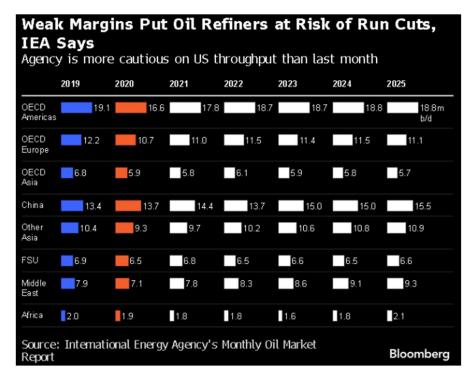
Oil Refiners at Risk of Run Cuts on Plentiful Fuel Supply: IEA

2024-07-11 08:00:00.15 GMT

By Rachel Graham

(Bloomberg) -- Refining margins have fallen in recent months partly as OPEC+ cuts and North Sea field maintenance squeeze the crude market, the IEA said in its monthly Oil Market Report.

- * "With ongoing signs of oversupplied product markets, the specter of additional run cuts for less sophisticated refineries remains a risk to higher refinery crude demand"
- * Middle East crude throughput will rise to a record in August; 2H growth this year forecast at 700k b/d y/y
- ** China's growth will be close to zero this year, below IEA's forecasts at the start of the year
- * For 2025, the IEA has trimmed its forecast for US throughput to reflect "a slightly more cautious outlook for USGC margins and a greater impact from refinery closures"
- * Global throughput forecast at 83.4m b/d in 2024 and 84m b/d in 2025



^{*} Click here to see equivalent table from the IEA's June report To contact the reporter on this story:

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West African Crude Differentials Gained in Late June, IEA Says

2024-07-11 08:00:00.8 GMT

By Bill Lehane

(Bloomberg) -- West African crude differentials rebounded by the end of June after sharp declines earlier in the month, firming on average for the month, the IEA said in monthly report.

- * Demand improved from European refiners as they came out of seasonal maintenance
- * Forcados rose to \$1.25/bbl above North Sea Dated by the end of the month, from +35c at the start of June
- * Qua Iboe hit a high of \$1.10/bbl by the end of June, averaging \$0.56/bbl for the month
- * Bonny Light climbed to +60c after starting the month at -30c
- * Chinese demand for Angolan crudes was strong, as a narrow Brent-Dubai EFS in early June helped clear crude for June and July loading
- ** Girassol added 36c over the month to \$2.36/bbl and Cabinda rose by 24c/bbl m-o-m to \$1.80/bbl

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News Story

07/12/2024 07:33:11 [BN] Bloomberg News

Saudi Arabia Boosts Dirtiest Oil Imports Amid Summer Demand (1)

- Fuel oil imports in June highest since at least November 2020
- World's biggest crude exporter buys fuel oil for power plants

By Anthony Di Paola

(Bloomberg) -- Saudi Arabia boosted imports of the dirtiest type of oil to the highest in more than three years to help meet power demand during the scorching summer.

Shipments of fuel oil rose in June to the most since at least the end of 2020, and are expected to remain elevated this month, according to data from market researchers Kpler and Vortexa. Purchases, which typically jump during the hottest months as air conditioners crank up, have risen as much as fourfold since March to about 350,000 barrels a day, according to Vortexa.



Saudi Arabia is the region's biggest buyer of fuel oil, a type of dirty product that's left over after refineries produce transport fuels like gasoline and diesel. It also burns crude oil directly to produce electricity, which likely contributed to the kingdom's exports dropping to a 10-month low of about 5.6 million barrels a day in June, according to data compiled by Bloomberg. Fuel oil is mostly sold at a discount to crude since it's heavier and more polluting.

Temperatures in Riyadh hovered in the mid-40Cs this week, according to AccuWeather, and can top 50C (122F) in the summer. The heat drives demand for electricity to power air conditioners, which in turn forces the kingdom to burn more oil.

Saudi Aramco, which handles oil shipments for the kingdom, declined to comment on the fuel oil imports.

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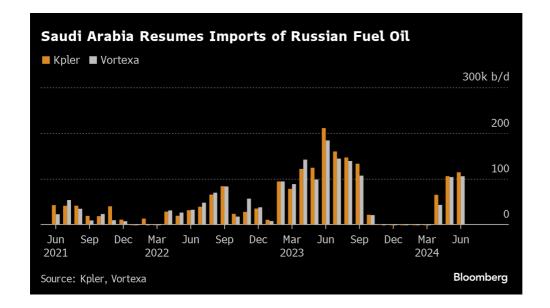
News Story

Time to Stop

Saudi Arabia aims to stop burning liquid fuels for power this decade as it targets net zero emissions by 2060. Crown Prince Mohammed bin Salman, pursuing a breakneck modernization program, has pledged to ramp up solar and wind generation. State oil producer Saudi Aramco last month signed \$25 billion contracts to pump natural gas from the Jafurah field for use including in power plants.

The company plans to provide enough gas to replace all the liquid fuel in power plants by 2030, freeing up roughly 1 million barrels a day of crude used domestically in the summer months for exports.

Saudi Arabia buys most of the fuel oil that Iraq and Bahrain produce, while also importing cargoes from the United Arab Emirates. In April, the kingdom resumed purchases from Russia after a five-month pause. Supplies from there have nearly doubled since then though are still below the levels of last summer.



Overall fuel oil imports are set to remain elevated again in July, with both Kpler and Vortexa already expecting roughly 300,000 barrels a day of purchases so far this month.

(Updates with Aramco declining to comment in the fifth paragraph.)

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News Story

06/19/2024 06:46:23 [BN] Bloomberg News

Saudi Arabia Dethrones China as Top Emerging-Market Borrower

- Kingdom accelerates global borrowing to drive Vision 2030
- Chinese international-bond sales 68% below five-year average

By Selcuk Gokoluk

(Bloomberg) -- Saudi Arabia has displaced China as the most prolific issuer of international debt among emerging markets, breaking Beijing's 12-year run at the top.

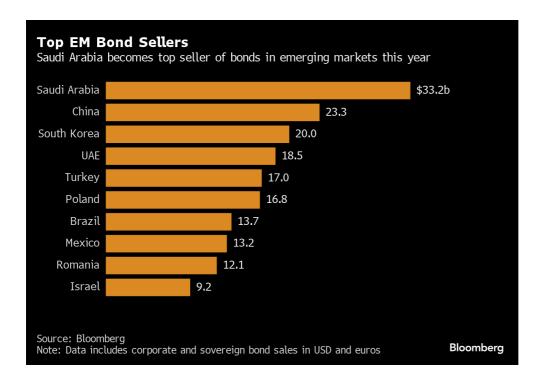
Data for new-bond sales by both governments and corporates this year reveal the <u>kingdom</u> is borrowing at a record pace as global debt investors begin to back Crown Prince's Mohammed bin Salman's Vision 2030 plan. Chinese borrowers, on the other hand, are witnessing a buying frenzy in local-currency bonds and have slowed international issuance to one of the slowest paces in recent years.

Overtaking China is meaningful for Saudi Arabia – which has 1/16th of the Asian nation's the gross domestic product and the drive to become a global business hub by the end of the decade. The latest data suggest improving sentiment as Riyadh seeks funding for projects to diversify the economy from oil and position it as a link between Asia and Europe. Meanwhile, the rest of emerging markets are also witnessing a blockbuster year for bond issuance, amid falling borrowing costs and a hunt for juicy yields.

"Sentiment for Saudi bonds is very healthy," said Apostolos Bantis, the Zurich-based managing director of fixed-income advisory at Union Bancaire Privee Ubp SA. "It's not a surprise that the Kingdom has become the largest EM bond issuer given its large funding needs for large infrastructure projects."

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Bond sales from Saudi Arabian entities have increased 8% so far this year and exceeded \$33 billion. The government accounts for more than half of this, including a \$5 billion dollar-denominated sukuk deal last month.

The kingdom is working to find alternative sources of funding to help cover an expected fiscal shortfall of about \$21 billion this year. It expects total funding activities for the year to reach about \$37 billion, to help accelerate Vision 2030. In fact, the country has turned to the bond market on such a scale partly because foreign direct investment has fallen short of its targets, while oil revenue has been crimped by supply cuts.

Read more: Saudi Arabia Ramps Up Bonds to Help Fund MBS's Big Projects

The nation's borrowing is already inviting caution from some money managers. Barclays Plc downgraded Saudi Arabia's sovereign credit to underweight from market weight, citing "recurrent" bond issuance, lower oil prices and Middle East tensions.

"Saudi can not keep up the current bond issuance pace for too long as that would start to have an impact on its fundamentals and cost of funding," said Bantis of UBP.

Overall, EM international bond sales have increased 28% from a year earlier to \$291 billion, the highest for comparable periods since 2021. The extra yield investors demand to buy EM bonds – sovereign and corporate combined – rather than Treasuries is now about 266 basis points, below the five-year average of 336 basis points,

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News Story

according to a Bloomberg index.

China's Falling Share

Meanwhile, China Development Bank in Beijing and Chinese companies have together sold \$23.3 billion of dollar-and euro-denominated bonds this year. That's a 68% drop from the country's average government and corporate-bond sales for this time for the year since 2019. China now accounts for only 8.1% of emerging-market borrowing, a far cry from 2017 when it accounted for one third of all issuances with a \$224 billion spree.

Unlike the trend in dollar bonds, the country is witnessing unprecedented bond issuance in local-currency debt as borrowing costs tumble to record low.

Read more: China's Hottest Credit Market Ever Is Even Luring Global Issuers

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Saudi Arabia's Transformation Stretches Economy and Petrowealth 2024-07-14 06:00:00.1 GMT

By Abeer Abu Omar

(Bloomberg) -- Saudi Arabia faces the most precarious moment yet of its economic reinvention.

Eight years after now-Crown Prince Mohammed bin Salman unveiled Vision 2030, his blueprint for a life after oil, delays and scalebacks with the multitrillion dollar makeover are laying bare the pressure on the kingdom's finances.

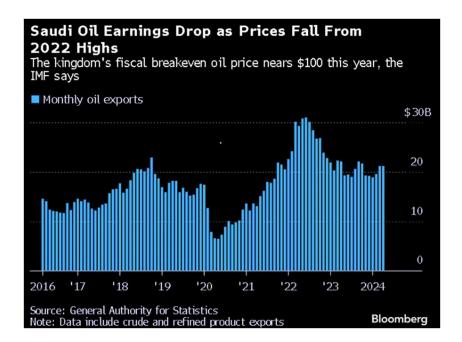


Read more: Saudi Prince's Trillion-Dollar Makeover Faces Funding Cutbacks

With the budget in deficit for six straight quarters, Saudi Arabia has become the biggest issuer of international debt in emerging markets. And its decision to cut oil production with other OPEC+ members in 2023 has failed to raise export revenues substantially.

Here is a look at the key stress points.

Petrodollar Reliance

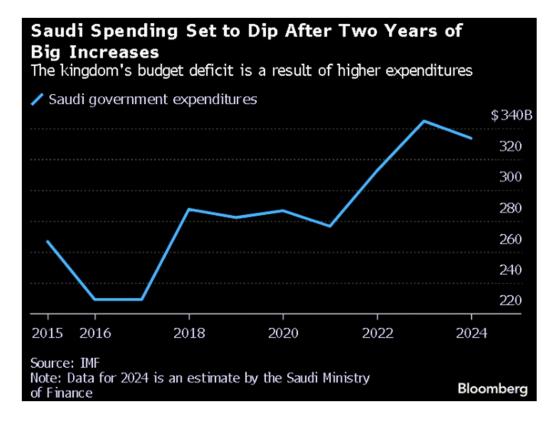


The Gulf country's oil earnings have dropped around one-third from 2022 levels, when Brent crude averaged nearly \$100 a barrel thanks to Russia's invasion of Ukraine. That's weighing on the kingdom's overall economic stability as it keeps spending on Prince Mohammed's huge projects, which include everything from the new city of Neom to tourist resorts, football leagues and Al investments.

"The vision is facing a test of reality and there are adjustments being taken," said Jean-Michel Saliba, Bank of America Corp.'s Middle East and North Africa economist. "It is a sign of maturity. I don't think it's a sign that the vision is being derailed."

Goldman Sachs Group Inc. found that Saudi Arabia's sovereign-risk score — a measure that takes into account financial and governance metrics — worsened the most after Israel among emerging markets during the first half of the year. A ranking by Morgan Stanley in June reached a similar conclusion, with the kingdom among "key laggards."

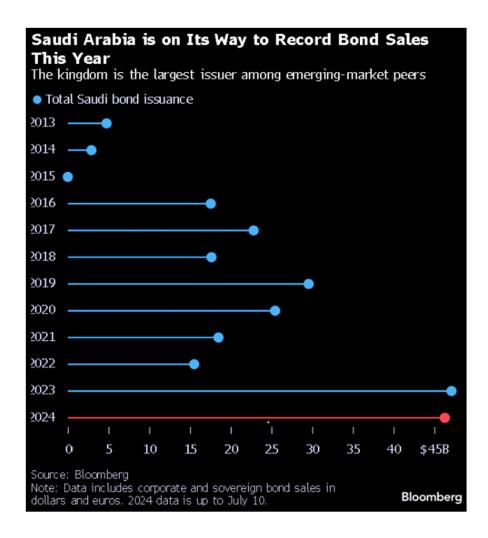
High Spending



"My biggest concern is that the rise in expenditure leads to substantial deficits that are structural, rather than temporary or cyclical," said Justin Alexander, director of Khalij Economics and an analyst for consultant GlobalSource Partners.

Rising debt captures the changes in Saudi finances over the past decade. While still low by international standards, the share of government debt to economic output has risen from 1.5% in 2014 and is on track to exceed 31% toward the end of the decade, according to the International Monetary Fund. Saudi Arabia could draw more scrutiny in the bond market and from credit rating companies if the ratio "creeps up more rapidly than forecast," said Alexander.

Record Debt



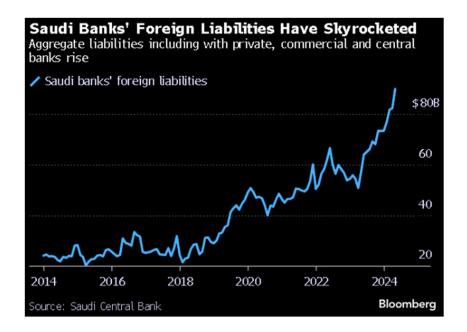
The government and other Saudi entities, including banks, the wealth fund and oil giant Aramco, have raised over \$46 billion in dollar and euro bonds so far this year. That's meant that Saudi Arabia has displaced China as the most prolific developing-nation issuer in international bond markets, according to data compiled by Bloomberg.

"The fiscal deficits will have to continue being funded by both external issuance on the Eurobond front and domestic issuance," said Carla Slim, an economist with Standard Chartered Plc.

Still, the government has the flexibility — as it's already showing — to reduce or delay investments in its so-called gigaprojects, according to Jim Krane, a fellow at Rice University's Baker Institute for Public Policy in Houston.

"Since there's no organized political opposition, there is little harm in scaling back or even making a dramatic U-turn on your 10-year development plan," said Krane.

Rising Liabilities



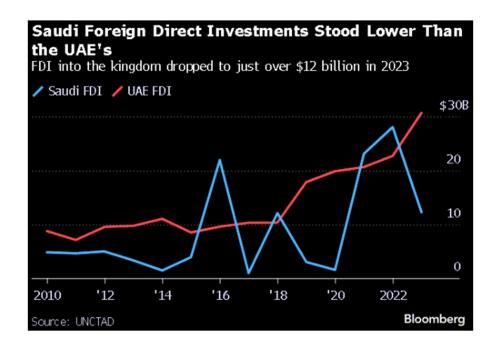
The country's external financial position is under pressure as it ramps up imports. The current-account balance — the broadest measure of trade and investment — will drop to almost zero in 2024 and shift into deficit from next year, the IMF forecasts, after being in surplus to the tune of 13% of GDP in 2022.

One result is "an unprecedented increase" in the foreign liabilities of Saudi lenders, according to Barclays Plc, given their growing role of providing hard currency to help meet domestic financing needs.

Local liquidity for Saudi banks remains stretched, as measured by the interest rates they charge one another for loans. The three-month Saudi Interbank Offered Rate has averaged a record of more than 6% this year.

The IMF says the Saudi government needs Brent to be nearly \$100 a barrel to balance its budget, about \$15 more than current levels. Bloomberg Economics estimates the break-even price at \$109 per barrel, once domestic spending by the Public Investment Fund — the sovereign wealth fund — is taken into account.

Foreign Investment



Foreign direct investment has been slow to materialize outside the oil and gas sector, making it harder for the crown prince to make his ambitions a reality.

The government wants to attract \$100 billion of FDI annually by 2030, a haul roughly three times bigger than it's ever achieved. Inflows reached around \$2.5 billion during the first quarter, according to government data, a fraction of this year's goal.

FDI was just \$12.3 billion in 2023, 60% less than neighboring United Arab Emirates, a much smaller economy, according to the United Nations Conference on Trade and Development.

Partly because of that, non-oil growth — a crucial gauge for the government — eased to the slowest pace since the coronavirus pandemic during the first quarter. That was one reason the IMF recently downgraded its forecast for Saudi Arabia's overall economic expansion this year to 2.6%. In late 2023, it was forecasting 4%.

Officials expect fiscal expenditure at around \$333 billion this year. That would be a decline from 2023, underscoring the government's newfound caution.

Even so, the kingdom's budget will be in the red for years to come, meaning domestic institutions like the PIF and Armaco will remain on the hook for many of the giga-projects.

What Bloomberg Economics Says...

"The biggest obstacle facing Saudi Arabia continues to be its unwaning reliance on oil. Although the kingdom has tried to lift prices through OPEC+, supply coming from elsewhere hindered that effort. Authorities need to spend to keep the economy ticking and the population happy, but maintain enough restraint to contain the budget deficit."

— Ziad Daoud, chief emerging-markets economist. Read more here.

For all the setbacks and pressures, the crown prince is determined to see his goals through, even if they take a different shape.

"The transformation is now institutionalized," said Karen Young, a senior research scholar at Columbia University's Center on Global Energy Policy. "The larger process of diversification is well underway, and I don't see a large chance of backtracking."

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By Iranian President-elect Masoud Pezeshkian

My message to the new world

1. Politics

July 12, 2024 - 20:59



TEHRAN – On May 19, 2024, the untimely passing of President Ebrahim Raisi- a deeply respected and dedicated public servant- in a tragic helicopter crash precipitated early elections in Iran, marking a pivotal moment in our nation's history.

Amidst war and turbulence in our region, Iran's political system demonstrated remarkable stability by conducting elections in a competitive, peaceful, and orderly manner, dispelling insinuations made by some "Iran experts" in certain governments. This stability, and the dignified manner in which the elections were conducted, underscore the discernment of our Supreme Leader, Ayatollah Khamenei, and the dedication of our people to democratic transition of power even in the face of adversity.

I ran for office on a platform of reform, fostering national unity, and constructive engagement with the world, ultimately earning the trust of my compatriots at the ballot box, including those young women and men dissatisfied with the overall state of affairs. I deeply value their trust and am fully committed to cultivating consensus, both domestically and internationally, to uphold the promises I made during my campaign.

I wish to emphasize that my administration will be guided by the commitment to preserving Iran's national dignity and international stature under all circumstances. Iran's foreign policy is founded on the principles of "dignity, wisdom, and prudence", with the formulation and execution of this state-policy being the responsibility of the president and the government. I intend to leverage all authority granted to my office to pursue this overarching objective.

With this in mind, my administration will pursue an opportunity-driven policy by creating balance in relations with all countries, consistent with our national interests, economic development, and requirements of regional and global peace and security. Accordingly, we will welcome sincere efforts to alleviate tensions and will reciprocate good-faith with good-faith.

Under my administration, we will prioritize strengthening relations with our neighbors. We will champion the establishment of a "strong region" rather than one where a single country pursues hegemony and dominance over the others. I firmly believe that neighboring and brotherly nations should not waste their valuable resources on erosive competitions, arms races, or the unwarranted containment of each other. Instead, we will aim to create an environment where our resources can be devoted to the progress and development of the region for the benefit of all.

We look forward to cooperating with Turkiye, Saudi Arabia, Oman, Iraq, Bahrain, Qatar, Kuwait, the United Arab Emirates, and regional organizations to deepen our economic ties, bolster trade relations, promote joint-venture investment, tackle common challenges, and move towards establishing a regional framework for dialogue, confidence building and development. Our region has been plagued for too long by war, sectarian conflicts, terrorism and extremism, drug trafficking, water scarcity, refugee crises, environmental degradation, and foreign interference. It is time to tackle these common challenges for the benefit of future generations. Cooperation for regional development and prosperity will be the guiding principle of our foreign policy.

As nations endowed with abundant resources and shared traditions rooted in peaceful Islamic teachings, we must unite and rely on the power of logic rather than the logic of power. By leveraging our normative influence, we can play a crucial role in the emerging post-polar global order by promoting peace, creating a calm environment conducive to sustainable development, fostering dialogue, and dispelling Islamophobia. Iran is prepared to play its fair share in this regard.

In 1979, following the Revolution, the newly established Islamic Republic of Iran, motivated by respect for international law and fundamental human rights, severed ties with two apartheid regimes, Israel and South Africa. Israel remains an apartheid regime to this day, now adding "genocide" to a record already marred by occupation, war crimes, ethnic cleansing, settlement-building, nuclear weapons possession, illegal annexation, and aggression against its neighbors.

As a first measure, my administration will urge our neighboring Arab countries to collaborate and utilize all political and diplomatic leverages to prioritize achieving a permanent ceasefire in Gaza aiming to stop the massacre and prevent the broadening of the conflict. We must then diligently work to end the prolonged occupation that has devastated the lives of four generations of Palestinians. In this context, I want to emphasize that all states have a binding duty under the 1948 Genocide Convention to take measures to prevent genocide; not to reward it through normalization of relations with the perpetrators.

Today, it seems that many young people in Western countries have recognized the validity of our decades-long stance on the Israeli regime. I would like to take this opportunity to tell this brave generation that we regard the allegations of antisemitism against Iran for its principled stance on the Palestinian issue as not only patently false but also as an insult to our culture, beliefs, and core values. Rest assured that these accusations are as absurd as the unjust claims of antisemitism directed at you while you protest on university campuses to defend the Palestinians' right to life.

China and Russia have consistently stood by us during challenging times. We deeply value this friendship. Our 25-year roadmap with China represents a significant milestone towards establishing a mutually beneficial "comprehensive strategic partnership," and we look forward to collaborating more extensively with Beijing as we advance towards a new global order. In 2023, China played a pivotal role in facilitating the normalization of our relations with Saudi Arabia, showcasing its constructive vision and forward-thinking approach to international affairs.

Russia is a valued strategic ally and neighbor to Iran and my administration will remain committed to expanding and enhancing our cooperation. We strive for peace for the people of Russia and Ukraine, and my government will stand prepared to actively support initiatives aimed at achieving this objective. I will continue to prioritize bilateral and multilateral cooperation with Russia, particularly within frameworks such as BRICS, the Shanghai Cooperation Organization and Eurasia Economic Union.

Recognizing that the global landscape has evolved beyond traditional dynamics, my administration is committed to fostering mutually beneficial relations with emerging international players in the Global South, especially with African nations. We will strive to enhance our collaborative efforts and strengthen our partnerships for the mutual benefit of all involved.

Iran's relations with Latin America are well-established and will be closely maintained and deepened to foster development, dialogue and cooperation in all fields. There is significantly more potential for cooperation between Iran and the countries of Latin America than what is currently being realized, and we look forward to further strengthening our ties.

Iran's relations with Europe have known its ups and downs. After the United States' withdrawal from the JCPOA (Joint Comprehensive Plan of Action) in May 2018, European countries made eleven commitments to Iran to try to salvage the agreement and mitigate the impact of the United States' unlawful and unilateral sanctions on our economy. These commitments involved ensuring effective banking transactions, effective protection of companies from U.S. sanctions, and the promotion of investments in Iran. European countries have reneged on all these commitments, yet unreasonably expect Iran to unilaterally fulfill all its obligations under the JCPOA.

Despite these missteps, I look forward to engaging in constructive dialogue with European countries to set our relations on the right path, based on principles of mutual respect and equal footing. European countries should realize that Iranians are a proud people whose rights and dignity can no longer be overlooked. There are numerous areas of cooperation that Iran and Europe can explore once European powers come to terms with this reality and set aside self-arrogated moral supremacy coupled with manufactured crises that have plagued our relations for so long. Opportunities for collaboration include economic and technological cooperation, energy security, transit routes, environment, as well as combating terrorism and drug trafficking, refugee crises, and other fields, all of which could be pursued to the benefit of our nations.

The United States also needs to recognize the reality and understand, once and for all, that Iran does not—and will not—respond to pressure. We entered the JCPOA in 2015 in good faith and fully met our obligations. But the United States unlawfully withdrew from the agreement motivated by purely domestic quarrels and vengeance, inflicting hundreds of billions of dollars in damage to our economy, and causing untold suffering, death and destruction on the Iranian people—particularly during the Covid

pandemic—through the imposition of extraterritorial unilateral sanctions. The U.S. deliberately chose to escalate hostilities by waging not only an economic war against Iran but also engaging in state terrorism by assassinating General Qassem Soleimani, a global anti-terrorism hero known for his success in saving the people of our region from the scourge of ISIS and other ferocious terrorist groups. Today, the world is witnessing the harmful consequences of that choice.

The U.S. and its Western allies, not only missed a historic opportunity to reduce and manage tensions in the region and the world, but also seriously undermined the Non-Proliferation Treaty (NPT) by showing that the costs of adhering to the tenets of the non-proliferation regime could outweigh the benefits it may offer. Indeed, the U.S. and its Western allies have abused the non-proliferation regime to fabricate a crisis regarding Iran's peaceful nuclear program - openly contradicting their own intelligence assessment - and use it to maintain sustained pressure on our people, while they have actively contributed to and continue to support the nuclear weapons of Israel, an apartheid regime, a compulsive aggressor and a non-NPT member and a known possessor of illegal nuclear arsenal.

I wish to emphasize that Iran's defense doctrine does not include nuclear weapons and urge the United States to learn from past miscalculations and adjust its policy accordingly. Decision-makers in Washington need to recognize that a policy that consists of pitting regional countries against each other has not succeeded and will not succeed in the future. They need to come to terms with this reality and avoid exacerbating current tensions.

The Iranian people have entrusted me with a strong mandate to vigorously pursue constructive engagement on the international stage while insisting on our rights, our dignity and our deserved role in the region and the world. I extend an open invitation to those willing to join us in this historic endeavor.

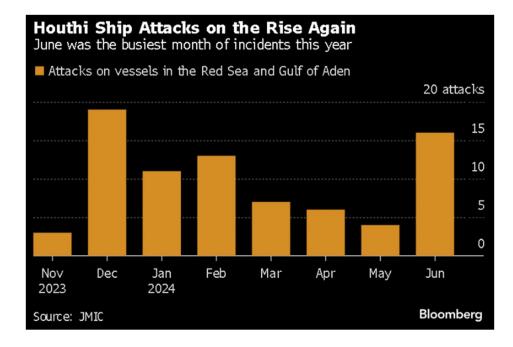
Houthis Mount Biggest Month of Attacks on Ships This Year

2024-07-02 15:28:34.847 GMT

By Alex Longley

(Bloomberg) -- Yemen's Houthi rebels conducted the largest number of attacks on commercial ships so far in 2024 in June, fresh proof that the group's threat to trade intensified in recent weeks.

There were 16 confirmed attacks on ships in June, according to figures published by the naval forces operating in the region. That's the most for any single month in 2024, and was only eclipsed in December when more vessels were still sailing through the region. Separate figures published by the Washington Institute show a similar trend.



Attacks by the Houthis ramped up in June, having shown signs of diminishing in the preceding months. The incidents included the second confirmed sinking of a vessel, as well as the first successful attack with a seaborne drone. The attacks are helping to contribute to the second-largest increase in a gauge of global sea transport on record as vessels sail thousands of miles extra around Africa.

Tracking the exact number of incidents can be tricky as different agencies use different definitions for attacks. Some may also go unreported.

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Kurdish oil smuggling to Iran flourishes

July 11, 20241:00 AM Reuters0 Comments



[1/2] Oil tankers are pictured near the Iraqi border with Turkey, on the outskirts of Duhok province, Iraq, May 11, 202 REUTERS/Kawa Omar/File Photo <u>Purchase Licensing Rights</u> [7]



/2] Oil tankers are pictured near the Iraqi border with Turkey, on the outskirts of Duhok province, Iraq, May 11, 202 EUTERS/Kawa Omar/File Photo <u>Purchase Licensing Rights</u>

ERBIL, Iraq, July 11 (Reuters) - Heading for Turkey to the north and Iran to the east, hundreds of oil tankers snake each day from near Kurdistan's capital Erbil, clogging the Iraqi region's often winding and mountainous highways.

The tankers are the most visible aspect of a massive operation to truck oil from the semi-autonomous region of Iraq to Iran and Turkey in murky, off-the-books transactions that have boomed since an official export pipeline closed last year.

Reuters pieced together the details of this flourishing trade through conversations with over 20 people including Iraqi and Kurdish oil engineers, traders and government officials, politicians, diplomats and oil industry sources.

They painted a picture of a booming business in which more than 1,000 tankers carry at least 200,000 barrels of cut-price oil every day to Iran and, to a lesser extent, Turkey – bringing in about \$200 million a month.

The scale of the unofficial exports, which has not previously been reported, is one reason Iraq has been unable to stick to output cuts agreed with the OPEC oil cartel this year, Iraqi officials said.

Iranian and Turkish officials did not respond to requests for comment.

Iraqi oil ministry spokesperson Assim Jihad said the Kurdistan trade was not approved by the Iraqi government and state oil marketer SOMO was the only official entity allowed to sell Iraqi crude.

He said the government did not have accurate figures for how much oil was being smuggled into Iran and Turkey.

"OPEC now has less patience for smuggling and has even been known to slap punitive measures on offending members. I doubt we'll see any retribution against Baghdad because it's well known that the Kurdish region lies outside central control," said Jim Krane at Rice University's Baker Institute in Houston.

The business could also put Kurdistan on a collision course with close ally Washington, as it assesses whether the trade breaches any U.S. economic sanctions on Iran, according to a U.S. official.

Until last year, Kurdistan exported most of its crude via the official Iraq-Turkey Pipeline (ITP) running from the Iraqi oil city of Kirkuk to the Turkish port of Ceyhan.

But those exports of about 450,000 barrels per day (bpd) halted in March 2023 when an international tribunal ruled in favour of the Iraqi federal government's call for the shipments to stop – leaving the pipeline in legal and financial limbo.

The federal administration in Baghdad, which has long held that it is the only party authorised to sell lraqi oil, successfully argued that Turkey arranged the exports with the Kurdistan regional government without its consent, in breach of a 1973 treaty.

'NO TRACE'

Tankers soon started taking Kurdish oil to neighbouring countries instead and the business accelerated this year after talks to reopen the pipeline stalled, industry sources, oil officials and diplomats said.

Local officials said none of the proceeds are accounted for, or registered, in the coffers of the Kurdistan Regional Government (KRG), which has been struggling to pay thousands of public employees.

"There is no trace of the oil revenues," said regional lawmaker Ali Huma Saleh, who was chair of the oil committee in Kurdistan's parliament until it was dissolved in 2023. He put the trade at over 300,000 bpd, higher than most other estimates.

Hiwa Mohammed, a senior official in the Patriotic Union of Kurdistan (PUK), one of Kurdistan's two ruling parties, said the oil was going through border crossings with the knowledge of the regional and federal governments.

KRG Treasury officials did not respond to requests for comment. The KRG Ministry of Natural Resources, which oversees oil trading in Kurdistan, does not have a spokesperson.

A U.S. official said Washington was looking at the oil trade to assess compliance with sanctions on Iran.

The U.S. Treasury Department declined to comment.

A State Department official said: "U.S. sanctions on Iran remain in place, and we regularly engage with partners on sanctions enforcement issues, but we do not detail those conversations."

A senior official at Kurdistan's natural resources ministry said oil production in the region was running at 375,000 bpd, of which 200,000 was trucked to Iran and Turkey, and the rest refined locally.

"Nobody knows what happens to the revenues from the 200,000 smuggled abroad, or the oil derivatives sold to refineries in the region," said the official, who declined to be named because the sensitivity of the matter.

CUT-PRICE CRUDE

The crude is sold by oil companies in Kurdistan to local buyers at cut-price rates of \$30 to \$40 a barrel, or about half the global rate, which equates to at least \$200 million a month in revenue, industry and political sources said.

Kurdistan's oil production is majority controlled by eight international oil firms: DNO ASA, Genel Energy, Gulf Keystone Petroleum, ShaMaran Petroleum, HKN Energy, WesternZagros, MOL's Kalegran and Hunt Oil Company.

Hunt Oil, based in the United States, declined to comment. The other seven companies did not respond to requests for comment, nor did local company KAR Group, a major player in Kurdistan.

While most oil production halted when the pipeline closed, some companies including DNO, Keystone and ShaMaran have said in statements they have since started producing crude for sale to buyers within Kurdistan.

ShaMaran said the average price of oil it sold in the first three months of 2024 was \$36.49 per barrel while Keystone said in June that sales of crude from the Shaikan Field this year were bringing in about \$28 a barrel.

The industry sources said approved local buyers take the crude from oil companies and sell it on through middlemen for export, without the knowledge of the producers.

The vast majority of the trucked oil goes to Iran, most of the industry and political sources said, via official Iraqi border crossings including Haji Omaran, or via Penjwen further south.

From there, it is loaded onto ships at Iranian ports in the Gulf at Bandar Imam Khomeini and Bandar Abbas – a trade route used in the past for Kurdish oil exports – or transferred by road to Afghanistan and Pakistan, industry, political and diplomatic sources said.

Reuters could not determine what Iran, which faces difficulties selling its own oil products because of sanctions, gets out of the trade, nor who is receiving the oil in Iran.

The PUK's Mohammed said it was sent to Iran to be refined into gasoline.

Pakistan's petroleum ministry declined to comment. Afghan officials did not respond to requests for comment.

BLACK-MARKET LABYRINTH

The trade is the latest iteration of a long-standing Iraqi black-market oil business widely seen as benefiting political elites who are closely linked to business interests.

Twelve people said officials in Kurdistan's two ruling parties, the Kurdistan Democratic Party (KDP) of the Barzani clan and the PUK of the Talabani clan, were the beneficiaries.

"There is a labyrinth of black-market salespeople getting paid, and people approving those sales. It's not that they are just looking the other way. They're taking their share," an industry source working in the Kurdish oil trade said.

A senior diplomat in Baghdad said political interests were so vested in the trade that resuming official exports via the pipeline, once seen as a priority, had dropped down the diplomatic agenda.

"I'm not going to be advocating for this while they're all having a party," the person said.

KDP officials did not respond to requests for comment about the black-market trade. Mohammed, the PUK official, did not comment on who might be behind it.

Kurdish officials say the region was forced into the trade by the pipeline closure, which they see as part of a broader effort by Iran-backed Shi'ite parties in Baghdad to curb the relative autonomy they have enjoyed since the end of the first Gulf war in 1991.

A senior Iraqi parliamentary official familiar with oil matters said Baghdad was aware of the details of the business but was avoiding public criticism as officials seek to resolve outstanding disputes with Erbil.

Putting pressure on Erbil to stop oil smuggling would corner the region and deprive it of all sources of funding, which could result in its collapse, said the person, who declined to be named due to the sensitivity of the issue.

The trade has been cited privately by Iraqi officials as being behind Baghdad's inability to stick to its OPEC production quotas, a bone of contention with OPEC's de facto leader Saudi Arabia.

Jihad, the oil ministry spokesman, said Iraq, which has pledged to scale back output this year to make up for the overproduction, was committed to voluntary production cuts.

For now, the sheer volume of tankers snarling up highways, and getting involved in accidents, is angering residents along major thoroughfares.

"It's very painful," said Rashid Dalak, visiting the grave of his brother Rouzkar, who was killed in a crash with a tanker in May on the highway between Erbil and Sulaimaniya that leads to the Iranian border...

"Despite passing through and damaging our roads and killing our loved ones... no-one here has seen a dollar."

<^^^^^^^ FOCUS-A year after Iraq-Turkey pipeline halt, no progress to resume flows Iraq, Kazakhstan agree plans to compensate for OPEC+ overproduction Iraq halts northern crude exports after winning arbitration case against Turkey OPEC oil output rises in May, led by Nigeria, Iraq, survey shows

^^^^^^^> (Reporting by Timour Azhari in Erbil and Baghdad; Additional reporting by Aref Mohammed in Basra, Ahmed Rasheed in Baghdad and Daphne Psaledakis in Washington; Writing by Timour Azhari; Editing by David Clarke)

https://www.woodmac.com/news/opinion/forecasting-the-future-of-oil-demand-five-key-questions-answered/

Forecasting the future of oil demand: five key questions answered

As many nations intensify their efforts toward decarbonisation, there is growing attention on the trajectory of global oil demand.

04 July 2024



Alan Gelder VP Refining, Chemicals & Oil Markets



Ann-Louise Hittle Vice President, Oil Markets

While the journey to net zero continues, the global demand for oil remains high. Wood Mackenzie has reported that demand is due to rise by 1.5 million barrels a day (b/d) this year, with a significant portion of this growth anticipated in the latter half of the year.

This complex scenario leaves many looking for answers about the future of oil. Fill out the form at the top of the page to download a complimentary extract from our recent oil demand report, or read on, as we answer key questions about its path in today's world.

What is oil demand?

We forecast total liquids demand, including refined products and separately ethane and liquified petroleum gases (LPG). These come from natural gas liquids and do not pass through the refining system. The refined products demand includes gasoline (excluding biofuels), diesel/gasoil (excluding biofuels), naphtha, jet kerosene and fuel oil. We include biofuels as a separate category for our forecast of demand.

For our long-term forecast, we assess demand by sector and then break it down by refined product or liquid. The sectors include light vehicles, road freight, aviation,

shipping, petrochemical feedstock, residential, commercial and agriculture and industry/power generation. There is an 'others' category that includes non-energy use, such as bitumen for road construction, and refinery own-use fuel.

GDP is a crucial factor in forecasting demand, and we have an in-house economics team that provides short- and long-term GDP forecasts to Wood Mackenzie's commodity groups. As an example of other factors beyond GDP that we use in our liquids demand forecasts, for the light vehicles sector, our outlooks include an assessment of car sales by country, different vehicle power trains, and vehicle miles or kilometres travelled.

What are the key underlying macro-economic fundamentals?

Two key drivers of long-term global oil demand are economic growth and population trends. Wood Mackenzie forecasts GDP growth to average 2.2% annually between 2024 and 2050. That means the global economy will nearly double in size to US\$170 trillion by 2050 (annual GDP in constant US\$2015 terms). China and India account for 43% of all global GDP growth from 2024 to 2050. Europe and North America will contribute 30% of global growth in this period.

For the demographic outlook, we use the UN Population Prospects 2022 report. According to the UN, the world's population is projected to reach 9.7 billion in 2050, up from 8 billion in 2022. Africa is the main driver of the population growth to 2050 while China and Europe slip into a declining trend for their populations. In our long-term forecast, oil demand in Africa will show growth by 2050.

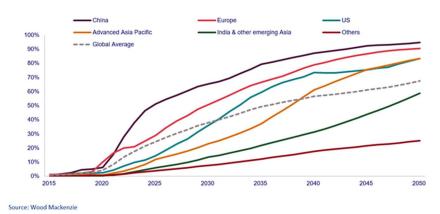
These economic and demographic trends should exert significant upward pressure on liquid demand. However, intensifying efforts toward decarbonisation, away from oil, counterbalance this upward force, ultimately leading to a plateau and then a decline in oil demand.

How important is the electrification of transport?

The timing and scale of the global peak in oil demand and the ensuing demand reduction are intrinsically linked to the trajectory of EV sales. For light passenger vehicles, the total share of EVs (BEVs and PHEVs) in new car sales globally is projected to climb from 18% in 2023 to 45% by 2033, with China, Europe, and the US at the vanguard. By 2050, EVs are projected to constitute over two-thirds of global car sales and more than half of the car stock. For the US, although the EV sales share is revised down from 21% to 14% for 2025, EVs are expected to account for over 50% of new light passenger vehicles by 2033, then surpassing 80% by 2050. With global

gasoline demand culminating by 2028, overall road sector demand is expected to reach a peak by 2029, followed by a long-term decline.

EV share of light vehicles sales



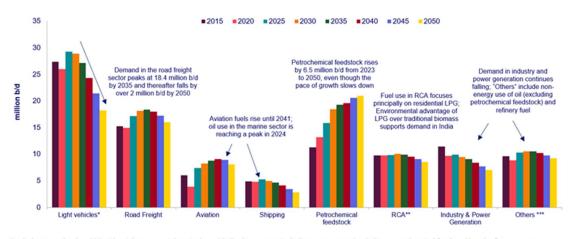
Does demand continue to grow in hard to abate sectors?

While oil use in aviation continues to grow until the end of the 2030s, it is expected to peak by the mid-2020s for marine. Liquified Natural Gas (LNG) is expected to have a much greater role in shipping compared to other transport sectors, while mandated fuel efficiency standards by the International Maritime Organisation (IMO) also start to erode fuel demand.

In these hard-to-abate sectors, electrification is considerably more challenging compared to the road sector. Electric vehicles are expected to have a much smaller role, due to the much higher power-to-weight ratio typical for planes and ships. Nevertheless, electrification is expected to develop to some extent in the short-haul aviation and short-sea shipping markets, where distances are much lower.

Key routes for decarbonisation in hard-to-abate sectors focus on liquid renewable fuels. Sustainable aviation fuel (SAF) will play a key role in lowering the carbon footprint of aviation. As demand for biofuels declines in the road sector due to increasing electrification, we expect aviation to exert the greatest pull on biofuel volumes, paying a higher premium compared to other transport sectors. As for shipping, we expect the pull for biofuels to be weaker compared to aviation, and renewable fuels of a non-biological origin (RFNBOs) to be an important means of decarbonising shipping. These fuels include the likes of e-ammonia, and e-methanol, which are expected to appear as alternative shipping fuels within the next decade.

Liquids demand per sector



*Includes two-wheelers **Residential, commercial, agriculture **All other sectors including non-energy (excluding petrochemical feedstock) and refinery own use Source: Wood Mackenzie

Why do petrochemical feedstocks continue to grow?

Petrochemicals are the building blocks of modern society. Clothing, tyres, digital devices, packaging, detergents, healthcare, and countless other everyday items that enable modern life are made from petrochemicals. With growing global populations and rising income levels, demand for petrochemicals is projected to increase. Petrochemical demand per capita tends to have an S-curve linkage with GDP per capita. Europe and North America are at the top of the S-curve with demand growth intricately linked to GDP growth.

For emerging economies, rising incomes deliver rapid petrochemical demand growth once the income thresholds on household appliance and vehicle ownership are breached. This convergence of petrochemical usage delivers demand growth at rates higher than global GDP growth for the medium term. However, as usage converges, demand growth slows to GDP levels and the impact of policies/regulations and recycling reduces growth further over the long term. By 2050, petrochemical feedstock demand is projected to be almost 50% larger than 2023 levels.

For more insight from our oil experts, fill in the form at the top of the page to get a complimentary extract from our latest report on oil demand.

Bloomberg

News Story

07/12/2024 03:58:44 [BN] Bloomberg News

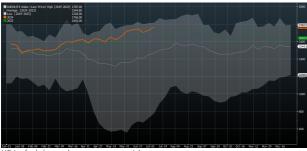
OIL DEMAND MONITOR: Summer Travel Boosts Aviation; China Worries

- Tracking data show flights well above year-earlier levels
- China's oil consumption dipped in second quarter, IEA says

By John Deane

(Bloomberg) -- Passengers have returned to the skies in a big way, boosting jet fuel usage during the Northern Hemisphere's summer travel season. Muted oil consumption in China, the largest importer, continues to dim the broader demand outlook.

Globally, flights comfortably exceed year-ago levels and track well above the pre-pandemic era, figures from Flightradar24 show. Seat capacity data from OAG Aviation reflects a similar pattern, as does US government data on airport passenger numbers. In the US, jet fuel product supplied was almost a fifth higher than last year in the latest weekly figures.



US jet fuel demand sees summer uptick

More broadly, oil inventories are declining on "solid demand and constrained supply growth" as OPEC+ sticks to production cuts, UBS Group AG

said. Warmer temperatures in the
Middle East probably boosted usage, said the bank, which sees global demand 1.5 million barrels a day higher this year.

Read More: Oil Stockpiles in US Drop as Refineries Run Hard: EIA Takeaways

The summer glow isn't being felt everywhere. Traders will be watching a major policy meeting in Beijing next week to see whether China can invigorate its economy. The nation has flashed warning signs on demand, including a two-year low in inbound supertankers and slumping freight rates. In its monthly outlook, the International Energy Agency said China's oil consumption slipped in the second quarter from a year earlier, adding that its "post-pandemic rebound has run its course."

Market watchers are divided on the outlook once summer tailwinds are spent. In its monthly report, OPEC stuck to forecasts for demand growth of 2.25 million barrels a day this year – maintaining its estimate for the third quarter and making only a tiny upward tweak to the fourth.

But the IEA pegged growth below 1 million barrels a day both this year and next, citing economic headwinds.

"After the hot summer, cooler trends are set to prevail," the IEA said.

Demand by Country:

		%vs	%vs	% vs	% vs	% vs	%		Latest		
Demand Measure	Location	2023	2022	2021	2020	2019	m/m	Freq	Date	Latest Value	Source
Gasoline product supplied	US	+7.3	+17	-6.4	+7.2	-3.6	+4	w	July 5	9.4m b/d	EIA
Distillates product supplied	US	+17	+2.9	-9.7	+15	-2.4	-5	w	July 5	3.47m b/d	EIA
Jet fuel product supplied	US	+19	+35	+34	+99	+1.9	+8.3	w	July 5	1.84m b/d	EIA
Total oil products supplied	US	+11	+11	-3.7	+15	-2.4	+8	w	July 5	20.75m b/d	EIA
Car use	UK	+1	+3.1	+6.5	+25	-1	+1	m	July 8	99	DfT
Heavy goods vehicle use	UK	-0.9	+1	-1.9	+9.3	+6	-1.9	m	July 8	106	DfT
All motor vehicle use index	UK	+1	+3	+6.1	+25	+4	+1	m	July 8	104	DfT
Gasoline (petrol) avg sales per filling station	UK	+3.6	+11	+8.3	+41	+3.3	+5.7	w	Week to June 30	7,428 liters/day	BEIS
Diesel avg sales per station	UK	-3.3	-4.5	-10	+7.9	-16	+7.8	w	Week to June 30	8,735	BEIS
Total road fuels sales per station	UK	-0.2	+2.1	-2.6	+21	-8.2	+6.8	w	Week to June 30	16,163	BEIS

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Diesel sales	India	+1		-5 m	June 7.98m PPAC tons
Gasoline sales	India	+4.6		-4.8 m	June 3.3m PPAC tons
Jet fuel sales	India	+10		-4.8 m	June 707k PPAC tons
LPG sales	India	+3.2		-3.7 m	June 2.31m PPAC tons
Total oil products	India	+2.6		-3.5 m	June 19.99m PPAC tons
Gasoline sales	Italy	+4.8	+20	+6.8 m	May 741k Energy tons Ministry
Transport diesel sales	Italy	-0.2	unch.	+6.3 m	May 2.04m Energy Ministry
Diesel/gasoil sales	Italy	+0.2	-0.4	+6.9 m	May 2.26m Energy tons Ministry
Jet fuel sales	Italy	+19	+3.7	+8.5 m	May 447k Energy tons Ministry
Total oil product sales	Italy	+1.7	-2.7	+6.7 m	May 4.49m Energy tons Ministry
Gasoline deliveries	Spain	+11		m	June 600k m3 Exolum
Diesel (and heating oil) deliveries	Spain	+5.3		m	June 2,233k Exolum
Jet fuel deliveries	Spain	+15		m	June 727k m3 Exolum
Total oil products deliveries	Spain	+7.9		m	June 3,560k Exolum
All vehicles traffic	Italy	unch.		+2 m	June n/a Anas
Heavy vehicle traffic	Italy	-1		-5 m	June n/a Anas
% change y/y in toll roads kms traveled	France	-3.2		m	June n/a Mundys
As above	Italy	-2.6		m	June n/a Mundys
As above	Spain	+2.4		m	June n/a Mundys
As above	Brazil	+5.9		m	June n/a Mundys
As above	Chile	-4.3		m	June n/a Mundys
As above	Mexico	+2		m	June n/a Mundys
Moro:					

More

Click here for Portugal data; story on May consumption.

Click here for previously published UFIP data on France's products sales in May, and here for story

Click here for more on sources

Air Travel:

					vs					Latest	Latest	
Measure	Location	vs 2023		vs 2021	2020	vs 2019	m/m	w/w	Freq.	Date	Value	Source
		c	hanges shown as %									
All flights	Worldwide	+5.7	+14	+28	+82	+18	+1	+2.1	d	July 8	239,564	Flightr
Commercial flights	Worldwide	+8.6	+30	+51	+142	+13	+2	+1.4	d	July 8	137,438	Flightr
Seat capacity per month	Worldwide	+7.5	+21	+56	+148	+3.7		+1.3	w	July 8 week	122.9m	OAG
Air traffic (flights)	Europe					-2.9	+1.3	-0.8	d	July 8	34,732	Eurocc

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News Story

Airport passenger throughput (7-day avg)	US	+8		+20	+34	+290	+7	-1	-6 v	v	July 7	2.62m	TSA
Air passenger traffic per month	China	+14		+387	+15	+128	+8.1	+5.2	! r	n	May	58.9m	CAAC
Heathrow airport passengers Refineries:	UK	+5.6		+24	+677	+2,022	+2.6	+3.6) r	n	June	7.43m	Heathr See re story
										Latest as of			
Measure	Location	vs 2023	vs 2022			vs 2021	vs 2019	m	/m chg	Date	Latest Value	Source	
				Changes are	in ppt un	less noted							
Crude		. 0 7	. 0. 0			0	-	0	. 0. 4		17.11m		
intake	US	+2.7	+2.8			+6.2	-1.	.9	+0.4	July 5	b/d	EIA	
Utilization	US	+1.7	+0.5			+3.2	+0.	.7	+0.4	July 5	95.4	EIA	
Utilization	US Gulf	+3.9	-1.1			+5.7	+0.	.5	+1.1	July 5	97	·······	
Utilization	US East	+21	-6.3			+3.2	+2	23	+7.1	July 5	92.3	EIA	
Utilization	US Midwest	-3.3	+1.5			-3.5	-2	.5	-2.9	July 5	95.3	EIA	
Utilization (indep. refs)	Shandong, China	-10	-19			-18	-1	3	-1.9	July 5	50.5	Oilchem	
Note: Changes in percentages for crude intake; refinery utilization changes shown in percentage points.													

⁻⁻With assistance from Julian Lee, Prejula Prem and Bill Lehane

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FORECAST OF ATLANTIC SEASONAL HURRICANE ACTIVITY AND LANDFALL STRIKE PROBABILITY FOR 2024

We have slightly increased our forecast and continue to call for an extremely active Atlantic hurricane season in 2024. Sea surface temperatures averaged across the hurricane Main Development Region of the tropical Atlantic and Caribbean remain near record warm levels. Extremely warm sea surface temperatures provide a much more conducive dynamic and thermodynamic environment for hurricane formation and intensification. We anticipate cool neutral ENSO or La Niña during the peak of the Atlantic hurricane season, resulting in reduced levels of tropical Atlantic vertical wind shear. Hurricane Beryl, a deep tropical Category 5 hurricane, is also a likely harbinger of a hyperactive season. This forecast is of above-normal confidence. We anticipate a well above-average probability for major hurricane landfalls along the continental United States coastline and in the Caribbean. As with all hurricane seasons, coastal residents are reminded that it only takes one hurricane making landfall to make it an active season. Thorough preparations should be made every season, regardless of predicted activity.

(as of 9 July 2024)

By Philip J. Klotzbach¹, Michael M. Bell², Alexander J. DesRosiers³, and Levi G. Silvers⁴
With Special Assistance from Carl J. Schreck III⁵
In Memory of William M. Gray⁶

Jennifer Dimas, Colorado State University media representative, is coordinating media inquiries in English and Spanish. She can be reached at 970-491-1543 or Jennifer. Dimas@colostate.edu

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ATLANTIC BASIN SEASONAL HURRICANE FORECAST FOR 2024

Forecast Parameter and 1991-2020	Issue Date	Issue Date	Issue Date	Observed Thru	Remainder of
Average (in parentheses)	13 April	11 June	9 July	8 July	Season
	2024	2024	2024	2024	Forecast
Named Storms (NS) (14.4)	23	23	25	3	22
Named Storm Days (NSD) (69.4)	115	115	120	12	108
Hurricanes (H) (7.2)	11	11	12	1	11
Hurricane Days (HD) (27.0)	45	45	50	6.25	43.75
Major Hurricanes (MH) (3.2)	5	5	6	1	5
Major Hurricane Days (MHD) (7.4)	13	13	16	4.5	11.5
Accumulated Cyclone Energy (ACE) (123)	210	210	230	36	194
ACE West of 60°W (73)	125	125	140	29	111
Net Tropical Cyclone Activity (NTC) (135%)	220	220	240	39	201

PROBABILITIES FOR AT LEAST ONE MAJOR (CATEGORY 3-4-5) HURRICANE LANDFALL ON EACH OF THE FOLLOWING COASTAL AREAS (AFTER 8 JULY):

- 1) Entire continental U.S. coastline 57% (full-season average from 1880–2020 is 43%)
- 2) U.S. East Coast Including Florida Peninsula (south and east of Cedar Key, Florida) 31% (full-season average from 1880–2020 is 21%)
- 3) Gulf Coast from the Florida Panhandle (west and north of Cedar Key, Florida) westward to Brownsville 38% (full-season average from 1880–2020 is 27%)

PROBABILITY FOR AT LEAST ONE MAJOR (CATEGORY 3-4-5) HURRICANE TRACKING THROUGH THE CARIBBEAN (10-20°N, 88-60°W)

1) 62% (full-season average from 1880–2020 is 47%)

ABSTRACT

Information obtained through early July indicates that the 2024 Atlantic hurricane season will have activity well above the 1991–2020 average. We estimate that 2024 will have 25 named storms (average is 14.4), 120 named storm days (average is 69.4), 12 hurricanes (average is 7.2), 50 hurricane days (average is 27.0), 6 major (Category 3-4-5) hurricanes (average is 3.2) and 16 major hurricane days (average is 7.4). These numbers include Alberto, Beryl and Chris. The probability of U.S. major hurricane landfall is estimated to be well above its long-period average. We predict Atlantic basin Accumulated Cyclone Energy (ACE) and Net Tropical Cyclone (NTC) activity in 2024 to be ~185% of their 1991–2020 average. We have increased our overall forecast numbers slightly, due in part to Hurricane Beryl.

Coastal residents are reminded that it only takes one hurricane making landfall to make it an active season for them. Thorough preparations should be made for every season, regardless of how much activity is predicted.

We anticipate that cool neutral ENSO or La Niña conditions are likely at the peak of the Atlantic hurricane season. Cool neutral ENSO or La Niña typically increases Atlantic hurricane activity through decreases in vertical wind shear. This year's sea surface temperatures across the tropical Atlantic and Caribbean are much warmer than normal, with temperatures averaged across the Main Development Region currently measuring ~1°C above the 1991–2020 average. This warmth favors an active Atlantic hurricane season via dynamic and thermodynamic conditions that are conducive for developing hurricanes. While early season storm activity in the western Atlantic typically has little relationship with overall basinwide activity, deep tropical hurricane activity in the tropical Atlantic and eastern Caribbean (such as we saw with Beryl) is often associated with hyperactive seasons.

Our confidence this year is higher than normal for a July forecast based on the strength and persistence of the current hurricane-favorable large-scale environmental conditions. We present probabilities of exceedance for hurricanes and Accumulated Cyclone Energy to give interested readers a better idea of the uncertainty associated with these forecasts. The skill of CSU's forecast updates increases as the peak of the Atlantic hurricane season approaches. Our early July forecast has good long-term skill when evaluated using hindcasts.

In addition to current observations, this forecast is based on an extended-range early July statistical prediction scheme that was developed using ~40 years of past data. Analog predictors are utilized as well. We also include statistical/dynamical models based off 25–40 years of past data from the European Centre for Medium Range Weather Forecasts, the UK Met Office, the Japan Meteorological Agency and the Centro Euro-Mediterraneo sui Cambiamenti Climatici model as four additional forecast guidance tools. This model guidance continues to unanimously point towards a hyperactive season.

Why issue extended-range forecasts for seasonal hurricane activity?

We are frequently asked this question. Our answer is that it is possible to say something about the probability of the coming year's hurricane activity which is superior to climatology. The Atlantic basin has the largest year-to-year variability of any of the global tropical cyclone basins. People are curious to know how active the upcoming season is likely to be, particularly if you can show hindcast skill improvement over climatology for many past years.

Everyone should realize that it is impossible to precisely predict this season's hurricane activity in early July. There is, however, much curiosity as to how global ocean and atmosphere features are presently arranged with respect to the probability of an active or inactive hurricane season for the coming year. Our early July statistical and statistical/dynamical hybrid models show strong evidence on ~25–45 years of data that significant improvement over a climatological forecast can be attained. We would never issue a seasonal hurricane forecast unless we had models developed over a long hindcast period which showed skill. We also now include probabilities of exceedance to provide a visualization of the uncertainty associated with these predictions.

We issue these forecasts to satisfy the curiosity of the public and to bring attention to the hurricane problem. There is a general interest in knowing what the odds are for an active or inactive season. One must remember that our forecasts are based on the premise that those global oceanic and atmospheric conditions which preceded comparatively active or inactive hurricane seasons in the past provide meaningful information about similar trends in future seasons.

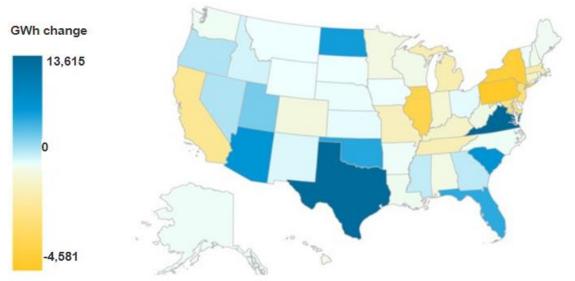
It is also important that the reader appreciate that these seasonal forecasts are based on statistical and dynamical models which will fail in some years. Moreover, these forecasts do not specifically predict where within the Atlantic basin these storms will strike. The probability of landfall for any one location along the coast is very low and reflects the fact that, in any one season, most U.S. coastal areas will not feel the effects of a hurricane no matter how active the individual season is.

JUNE 28, 2024

Commercial electricity demand grew fastest in states with rapid computing facility growth

U.S. states change in commercial sector electricity consumption (2019–2023) change in annual sales of electricity to commercial customers, gigawatthours (GWh)





Data source: U.S. Energy Information Administration, *Electricity Data Browser*

Consumption of electricity in the U.S. commercial sector has recovered from pandemic levels, with annual U.S. sales of electricity to commercial customers in 2023 totaling 14 billion kilowatthours (BkWh), or 1%, more than in 2019. However, the growth in commercial demand for electricity is concentrated in a handful of states experiencing rapid development of large-scale computing facilities such as data centers. Electricity demand has grown the most in Virginia, which added 14 BkWh, and Texas, which added 13 BkWh. Based on our expectation that regional electricity demand will grow, we revised our forecasts upward for commercial electricity demand through 2025 in our June *Short-Term Energy Outlook* (STEO).

Commercial electricity demand in the 10 states with the most electricity demand growth increased by a combined 42 BkWh between 2019 and 2023, representing growth of 10% in those states over that four-year period. By contrast, demand in the forty other states decreased by 28 BkWh over the same period, a 3% decline. Although growth in the top 10 states has been fairly consistent over time, commercial electricity consumption declined between 2022 and 2023 in a few because of mild summer weather.

Electricity demand has grown the most in Virginia, largely driven by Dominion Energy Virginia, the main electricity utility in the state. Virginia has become a major hub for data centers, with <u>94 new facilities</u> <u>connected since 2019</u> given the access to a densely packed fiber backbone and to four subsea fiber cables.

Data source: U.S. Energy Information Administration, *Electricity Data Browser*

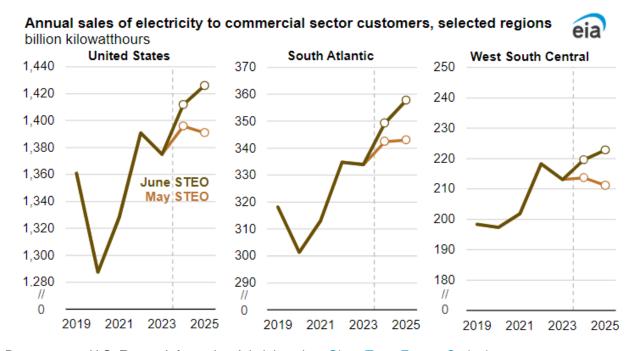
Electricity demand also grew substantially in Texas, where relatively low costs for electricity and land have attracted a high concentration of data centers and cryptocurrency mining operations. North Dakota stands out with the fastest relative growth at 37% (up 2.6 BkWh) between 2019 and 2023, attributed to the <u>establishment of large computing facilities in the state</u>. In addition, western states such as Arizona and Utah have shown robust growth in commercial electricity demand, further contributing to the overall increase in the top 10 states.

In contrast, demand for electricity by the commercial sector in some large states such as New York, Illinois, and California has been flat or has declined compared with 2019.

We provide monthly forecasts of retail sales of electricity by sector for the nine <u>census divisions</u> in our *Short-Term Energy Outlook*. After reviewing information and projections from utilities and grid operators in the areas of the country with rapid data center development, we revised our forecasts upward for commercial electricity demand through 2025.

We made our largest revisions to the forecast in the South Atlantic and West South Central census divisions, which together account for 40% of U.S. commercial electricity demand. We now expect that commercial consumption in the South Atlantic will increase by 5% in 2024 and 2% in 2025 and in West South Central by 3% this year and 1% next year. Other regions with strong growth in sales of electricity to the commercial sector include the West North Central and Mountain census divisions (both with forecast annual growth averaging 3% in 2024 and 2025).

Nationally, we expect U.S. sales of electricity to the commercial sector will grow by 3% in 2024 and by 1% in 2025. Data center developments are evolving rapidly, and we plan to re-evaluate our upcoming forecasts as we receive more information.



Data source: U.S. Energy Information Administration, Short-Term Energy Outlook

Governor Abbott, Lt. Governor Patrick Joint Statement On Texas Energy Fund

July 1, 2024 | Austin, Texas | Press Release

Governor Greg Abbott and Lieutenant Governor Dan Patrick today issued the following statement concerning the future of the Texas Energy Fund:

"In recent testimony before the Senate Business and Commerce committee, ERCOT CEO Pablo Vegas testified that Texas may need 150,000 megawatts of power to power our grid by 2030. That is only six years away. Currently, Texas typically has approximately 85,000 megawatts of power available counting wind, solar, coal, nuclear, and natural gas. If the new estimate is correct, the updated numbers provided by Mr. Vegas call for an immediate review of all policies concerning the grid.

Last November, voters overwhelmingly approved Senate Joint Resolution 93, which created the Texas Energy Fund, providing for a \$5 billion low-interest loan program to incentivize the building of more dispatchable natural gas plants. Texas has already received notice of intent to apply for \$39 billion in loans, making the program nearly eight times oversubscribed. With the new projections for 2030, we will seek to expand the program to \$10 billion to build more new plants as soon as possible. The average plant will take three to four years to complete, and new transmission lines will take three to six years to complete. Texas is currently the fastest state to approve and build new plants and transmission lines because of our low regulations and probusiness policies, but we must move quickly."

Texas power grid operator predicts power demand will nearly double by 2030

That updated forecast, given to state lawmakers, shows significantly higher numbers than previously predicted.

Author: Adam Bennett Published: 6:42 PM CDT June 12, 2024 Updated: 7:04 PM CDT June 12, 2024 AUSTIN, Texas — Energy officials told state lawmakers on Wednesday that power demand in Texas is growing even faster than expected.

The Electric Reliability Council of Texas (ERCOT), which operates the state's power grid, is now forecasting power demand to nearly double by 2030.

During a public hearing before the Texas Senate Business & Commerce committee, Lori Cobos with the Public Utility Commission of Texas (PUC) said ERCOT expects power demand to increase to 150 gigawatts by 2030, up from 85 gigawatts currently.

That updated projection is 40 gigawatts higher than what was previously forecasted. Cobos said roughly 60% of the new demand is from Bitcoin mining and data centers, including those run by artificial intelligence (AI). Cobos attributed the rest to hydrogen production facilities, along with the expansion and electrification of existing industries, including oil and gas.

Cobos said Texas has the nation's fastest-growing economy, the world's eighth-largest economy and a current population of 30 million that's expected to reach 50 million people by 2050.

The new projection caught several members of the Texas Senate off guard, with State Sen. Charles Schwertner, a Republican from Georgetown and the committee's chairman, questioning why lawmakers were just now hearing it.

Woody Rickerson, senior vice president and chief operating officer of ERCOT, responded by saying previous forecasts used a different, more conservative methodology.

While Schwertner and some colleagues had questions about the accuracy of this new prediction, members of both parties said the new information means a new approach is needed moving forward.

"It [has] huge policy implications, and every assumption we've made in the last four years is now called into question once again," State Sen. Nathan Johnson, a Democrat from Dallas, said. "All of them."

"Al's just come on the scene, but who knows what's next, even after that, that will consume even more?" State Sen. Donna Campbell, a Republican from New Braunfels, asked. "Can we just say, 'No, you can't come'?" Lt. Gov. Dan Patrick responded to ERCOT's new projection in a social media post on X, the platform previously known as Twitter, writing that the state needs to take a close look at crypto mining and data centers. Patrick said the two industries "produce very few jobs compared to the incredible demands they place on our grid."

In late May, Patrick reported that 81 companies had applied for low-interest loans from the state to build new dispatchable power plants, which would add 41 more gigawatts to the grid.

Matt Boms, the executive director of Texas Advanced Energy Business Alliance, testified during the hearing on the importance of distributed energy resources, such as rooftop solar and smart meters, for grid reliability. "From our perspective, you can't solve this problem without working on the demand side of the solution," Boms told KVUE during an interview following his testimony. "How do we tackle energy efficiency, demand response and distributed energy resources in Texas, in a state that really needs every megawatt that it can get?" Boms wants to see new transmission built to more effectively move cleaner energy.

State lawmakers won't be able to pass new bills until the next legislative session, which begins in January.

Adam Bennet

5 JULY 2024 1 MIN

Vattenfall continues review of HySkies project scope

Vattenfall and Shell have decided to pause their collaboration in the HySkies electrofuel project while Vattenfall continues the search for new partners to join potential industry decarbonisation developments in the Forsmark region.

In 2021 Vattenfall took the initiative to develop the HySkies project together with Shell, aiming to speed up the transition towards electrofuels for aviation. Now Vattenfall and Shell have agreed to pause their collaboration, and invite other potential partners to join Vattenfall.

"When new technologies are being investigated, like in HySkies, there can be adjustments in early stages of projects, such as the feasibility study phase. However, Vattenfall believes strongly in the opportunities of the Forsmark region to decarbonise heavy industries, and we will continue our investigations to identify potential suitable partners to join our ambitions towards a fossil free future," says Per Sundell, Senior Business Developer, Vattenfall.

While Shell sees a future in the HySkies project, including opportunities for future potential collaborations, currently there is a different belief in timelines for the project to be realised.

With Vattenfall's high belief in the opportunities of the Forsmark region to decarbonise heavy industries through fossil free electricity, hydrogen and captured CO2, the full potential is currently under review and investigations are ongoing to identify potential suitable industrial partners to join our ambitions towards a fossil free future.

Both companies have requested for a termination of the grant agreement for financial support via the EU Innovation Fund, considering it is infeasible for the project to succeed within the framework of that agreement and aiming to free up funds for others to use in their ambitions to decarbonise.

By Vattenfall Media Relations press@vattenfall.com

https://group.vattenfall.com/press-and-media/newsroom/2023/accelerating-ahead-with-hydrogen-in-the-tank/

Electrofuel. Collective name for several fuels such as sustainable jet kerosene or methanol. Produced by hydrogen reacting with carbon dioxide captured from process emissions, for example from the chimney of a paper mill or a waste incineration plant. Vattenfall has projects for the production of electrofuel working in partnerships with, among others, Shell, Preem and St1.

Advantages:

Can replace or be mixed into fossil aviation kerosene and thus reduce the fossil CO₂ footprint from air traffic. Is often a suitable solution where other solutions for electrification do not work.

Disadvantages:

Lower efficiency than direct electric operation or direct use of hydrogen.

LDV Total Sales of PEV and HEV by Month (updated through June 2024)

	PEV			
Month	BEV PHEV		HEV	Total LDV
Dec-10	19	326	28,592	1,144,840
Jan-11	103	321	19,540	819,938
Feb-11	83	281	23,306	993,535
Mar-11	298	608	34,533	1,246,668
Apr-11	573	493	25,602	1,157,928
May-11	1,150	481	17,419	1,061,841
Jun-11	1,708	561	12,655	1,053,414
Jul-11	932	125	19,621	1,059,730
Aug-11	1,363	302	21,181	1,072,379
Sep-11	1,031	723	17,625	1,053,761
Oct-11	866	1,108	20,057	1,021,185
Nov-11	773	1,139	26,110	994,786
Dec-11	1,212	1,529	31,100	1,243,784
Jan-12	824	603	21,779	913,284
Feb-12	639	1,023	36,222	1,149,432
Mar-12	961	3,200	48,206	1,404,623
Apr-12	479	3,116	39,901	1,184,567
May-12	612	2,766	37,184	1,334,642
Jun-12	863	2,455	34,558	1,285,499
Jul-12	479	2,537	31,611	1,153,759
Aug-12	866	3,878	38,369	1,285,292
Sep-12	1,306	4,503	34,836	1,188,899
Oct-12	2,240	4,994	33,290	1,092,294
Nov-12	2,614	4,544	35,002	1,143,916
Dec-12	2,704	4,965	43,690	1,356,070
Jan-13	2,372	2,354	34,611	1,043,238
Feb-13	2,666	2,789	40,173	1,192,299
Mar-13	4,553	3,079	46,327	1,453,038
Apr-13	4,403	2,735	42,804	1,285,446
May-13	4,545	3,209	48,796	1,443,311
Jun-13	4,573	4,169	44,924	1,403,121
Jul-13	3,943	3,499	45,494	1,313,844
Aug-13	4,956	6,407	53,020	1,501,294
Sep-13	3,650	4,477	33,576	1,137,206
Oct-13	3,733	6,367	33,570	1,206,182
Nov-13	3,930	4,903	36,085	1,243,852
Dec-13	4,770	5,020	36,155	1,358,734
Jan-14	2,971	2,934	27,555	1,011,187
Feb-14	3,324	3,721	30,561	1,192,467
Mar-14	4,578	4,594	43,790	1,537,270
Apr-14	4,187	4,718	39,430	1,391,303
May-14	5,802	6,651	52,227	1,609,678

Note:

PEV Plug-in Electric VehiclesBEV Battery Electric Vehicles

PHEV Plug-in Hybrid Electric Vehicles

HEV Hybrid Electric VehiclesLDV Light-Duty Vehicles (car & light

truck, including all powertrain types)

	4.000	0 = 4.4	22.225	
Jun-14	4,982	6,511	39,225	1,421,963
Jul-14	5,693	5,740	44,488	1,435,805
Aug-14	6,483	5,920	48,208	1,586,374
Sep-14	5,983	3,357	31,385	1,245,786
Oct-14	5,927	3,735	30,892	1,281,132
Nov-14	6,176	3,609	31,109	1,302,655
Dec-14	7,419	3,867	33,302	1,507,928
Jan-15	3,977	2,113	25,312	1,152,480
Feb-15	4,435	2,589	27,038	1,258,570
Mar-15	5,715	3,020	33,654	1,545,710
Apr-15	6,037	2,962	32,379	1,455,242
May-15	7,057	4,416	40,257	1,634,952
Jun-15	6,975	3,409	32,330	1,476,472
Jul-15	5,143	3,836	35,666	1,510,941
Aug-15	5,224	3,786	37,633	1,577,179
Sep-15	6,704	3,038	32,106	1,442,113
Oct-15	5,740	4,081	30,485	1,455,153
Nov-15	6,103	4,275	25,153	1,318,210
Dec-15	7,954	5,483	32,387	1,641,913
Jan-16	3,576	3,137	20,967	1,148,087
Feb-16	4,424	3,909	24,371	1,343,922
Mar-16	7,115	5,319	28,756	1,595,065
Apr-16	6,266	5,842	28,988	1,506,431
May-16	6,526	5,619	30,573	1,535,670
Jun-16	7,678	6,113	27,681	1,512,996
Jul-16	7,762	6,525	32,633	1,521,245
Aug-16	8,601	6,372	32,206	1,511,405
Sep-16	10,032	6,037	31,286	1,434,483
Oct-16	5,408	5,943	26,484	1,370,721
Nov-16	6,266	7,858	28,497	1,378,635
Dec-16	13,077	10,211	34,507	1,688,368
Jan-17				
Feb-17	5,398 5,846	5,669	22,630	1,142,568 1,333,128
		6,247	28,355	
Mar-17	10,171	7,384	32,012	1,554,998
Apr-17	5,961	7,300	30,949	1,426,883
May-17	8,038	8,645	33,729	1,519,793
Jun-17	8,814	7,787	30,073	1,474,970
Jul-17	7,802	7,407	29,050	1,416,743
Aug-17	8,850	7,668	34,850	1,484,826
Sep-17	13,421	7,719	37,319	1,525,522
Oct-17	6,792	6,665	29,451	1,356,789
Nov-17	8,435	8,408	30,075	1,399,640
Dec-17	14,959	10,289	32,187	1,605,527
Jan-18	9,154	6,241	21,718	1,151,011
Feb-18	6,653	8,783	24,609	1,293,763
Mar-18	11,060	11,601	28,165	1,647,090

Apr-18 12,794 9,931 24,827 1,353,546 May-18 12,232 11,403 31,602 1,586,493 Jun-18 12,997 10,485 31,038 1,543,716 Jul-18 15,387 9,269 28,203 1,362,964 Aug-18 20,222 10,132 30,182 1,482,215 Sep-18 24,163 10,777 31,985 1,432,136 Oct-18 29,937 9,937 28,614 1,360,281 Nov-18 24,089 11,580 27,453 1,382,553 Dec-18 28,374 13,744 29,753 1,617,778 Jan-19 26,942 6,010 19,153 1,133,157 Feb-19 10,644 6,610 22,730 1,251,513 Mar-19 17,281 8,074 30,926 1,598,811 Apr-19 20,113 5,908 33,082 1,326,555 May-19 18,012 7,949 44,162 1,581,479 Jun-19 23,521		42.704	0.004	24.027	4.050.546
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Dec-18 28,374 13,744 29,753 1,617,778 Jan-19 26,942 6,010 19,153 1,133,157 Feb-19 10,644 6,610 22,730 1,251,513 Mar-19 17,281 8,074 30,926 1,598,811 Apr-19 20,113 5,908 33,082 1,326,555 May-19 18,012 7,949 44,162 1,581,479 Jun-19 23,421 7,999 39,247 1,509,674 Jul-19 23,559 7,197 36,341 1,396,460 Aug-19 18,864 8,433 42,830 1,638,722 Sep-19 21,812 5,816 29,848 1,267,150 Oct-19 23,072 6,388 32,457 1,333,995 Nov-19 11,421 7,733 32,962 1,403,153 Dec-19 18,681 7,674 35,706 1,512,243 Jan-20 26,391 5,104 27,166 1,136,560 Feb-20 11,151					
Jan-19 26,942 6,010 19,153 1,133,157 Feb-19 10,644 6,610 22,730 1,251,513 Mar-19 17,281 8,074 30,926 1,598,811 Apr-19 20,113 5,908 33,082 1,326,555 May-19 18,012 7,949 44,162 1,581,479 Jun-19 23,421 7,999 39,247 1,509,674 Jul-19 23,559 7,197 36,341 1,396,460 Aug-19 18,864 8,433 42,830 1,638,722 Sep-19 21,812 5,816 29,848 1,267,150 Oct-19 23,072 6,388 32,457 1,333,995 Nov-19 11,421 7,733 32,962 1,403,153 Dec-19 18,681 7,674 35,706 1,512,243 Jan-20 26,391 5,104 27,166 1,136,560 Feb-20 11,151 6,111 32,309 1,350,570 Mar-20 18,234 3					
Feb-19 10,644 6,610 22,730 1,251,513 Mar-19 17,281 8,074 30,926 1,598,811 Apr-19 20,113 5,908 33,082 1,326,555 May-19 18,012 7,949 44,162 1,581,479 Jun-19 23,421 7,999 39,247 1,509,674 Jul-19 23,559 7,197 36,341 1,396,460 Aug-19 18,864 8,433 42,830 1,638,722 Sep-19 21,812 5,816 29,848 1,267,150 Oct-19 23,072 6,388 32,457 1,333,995 Nov-19 11,421 7,733 32,962 1,403,153 Dec-19 18,681 7,674 35,706 1,512,243 Jan-20 26,391 5,104 27,166 1,136,560 Feb-20 11,151 6,111 32,309 1,350,570 Mar-20 18,234 3,481 23,591 989,954 Apr-20 8,058 2,01	Dec-18	28,374	13,744	29,753	1,617,778
Mar-19 17,281 8,074 30,926 1,598,811 Apr-19 20,113 5,908 33,082 1,326,555 May-19 18,012 7,949 44,162 1,581,479 Jun-19 23,421 7,999 39,247 1,509,674 Jul-19 23,559 7,197 36,341 1,396,460 Aug-19 18,864 8,433 42,830 1,638,722 Sep-19 21,812 5,816 29,848 1,267,150 Oct-19 23,072 6,388 32,457 1,333,995 Nov-19 11,421 7,733 32,962 1,403,153 Dec-19 18,681 7,674 35,706 1,512,243 Jan-20 26,391 5,104 27,166 1,136,560 Feb-20 11,151 6,111 32,309 1,350,570 Mar-20 18,234 3,481 23,591 989,954 Apr-20 8,626 3,911 27,740 1,119,089 Jul-20 23,075 5,22	Jan-19	26,942	6,010	19,153	1,133,157
Apr-19 20,113 5,908 33,082 1,326,555 May-19 18,012 7,949 44,162 1,581,479 Jun-19 23,421 7,999 39,247 1,509,674 Jul-19 23,559 7,197 36,341 1,396,460 Aug-19 18,864 8,433 42,830 1,638,722 Sep-19 21,812 5,816 29,848 1,267,150 Oct-19 23,072 6,388 32,457 1,333,995 Nov-19 11,421 7,733 32,962 1,403,153 Dec-19 18,681 7,674 35,706 1,512,243 Jan-20 26,391 5,104 27,166 1,136,560 Feb-20 11,151 6,111 32,309 1,350,570 Mar-20 18,234 3,481 23,591 989,954 Apr-20 8,058 2,015 14,268 715,322 May-20 8,626 3,911 27,740 1,119,089 Jun-20 16,809 4,206 </td <td>Feb-19</td> <td>10,644</td> <td>6,610</td> <td>22,730</td> <td>1,251,513</td>	Feb-19	10,644	6,610	22,730	1,251,513
May-19 18,012 7,949 44,162 1,581,479 Jun-19 23,421 7,999 39,247 1,509,674 Jul-19 23,559 7,197 36,341 1,396,460 Aug-19 18,864 8,433 42,830 1,638,722 Sep-19 21,812 5,816 29,848 1,267,150 Oct-19 23,072 6,388 32,457 1,333,995 Nov-19 11,421 7,733 32,962 1,403,153 Dec-19 18,681 7,674 35,706 1,512,243 Jan-20 26,391 5,104 27,166 1,136,560 Feb-20 11,151 6,111 32,309 1,350,570 Mar-20 18,234 3,481 23,591 989,954 Apr-20 8,058 2,015 14,268 715,322 May-20 8,626 3,911 27,740 1,119,089 Jun-20 16,809 4,206 41,590 1,101,169 Jul-20 23,075 5,228 </td <td>Mar-19</td> <td>17,281</td> <td>8,074</td> <td>30,926</td> <td>1,598,811</td>	Mar-19	17,281	8,074	30,926	1,598,811
Jun-19 23,421 7,999 39,247 1,509,674 Jul-19 23,559 7,197 36,341 1,396,460 Aug-19 18,864 8,433 42,830 1,638,722 Sep-19 21,812 5,816 29,848 1,267,150 Oct-19 23,072 6,388 32,457 1,333,995 Nov-19 11,421 7,733 32,962 1,403,153 Dec-19 18,681 7,674 35,706 1,512,243 Jan-20 26,391 5,104 27,166 1,136,560 Feb-20 11,151 6,111 32,309 1,350,570 Mar-20 18,234 3,481 23,591 989,954 Apr-20 8,626 3,911 27,740 1,119,089 Jun-20 16,809 4,206 41,590 1,101,169 Jul-20 23,075 5,228 43,738 1,236,643 Aug-20 17,291 6,478 42,191 1,318,070 Sep-20 28,101 6,67	Apr-19	20,113	5,908	33,082	1,326,555
Jul-19 23,559 7,197 36,341 1,396,460 Aug-19 18,864 8,433 42,830 1,638,722 Sep-19 21,812 5,816 29,848 1,267,150 Oct-19 23,072 6,388 32,457 1,333,995 Nov-19 11,421 7,733 32,962 1,403,153 Dec-19 18,681 7,674 35,706 1,512,243 Jan-20 26,391 5,104 27,166 1,136,560 Feb-20 11,151 6,111 32,309 1,350,570 Mar-20 18,234 3,481 23,591 989,954 Apr-20 8,058 2,015 14,268 715,322 May-20 8,626 3,911 27,740 1,119,089 Jun-20 16,809 4,206 41,590 1,101,169 Jul-20 23,075 5,228 43,738 1,236,643 Aug-20 17,291 6,478 42,191 1,318,070 Sep-20 28,101 6,670 </td <td>May-19</td> <td>18,012</td> <td>7,949</td> <td>44,162</td> <td>1,581,479</td>	May-19	18,012	7,949	44,162	1,581,479
Aug-19 18,864 8,433 42,830 1,638,722 Sep-19 21,812 5,816 29,848 1,267,150 Oct-19 23,072 6,388 32,457 1,333,995 Nov-19 11,421 7,733 32,962 1,403,153 Dec-19 18,681 7,674 35,706 1,512,243 Jan-20 26,391 5,104 27,166 1,136,560 Feb-20 11,151 6,111 32,309 1,350,570 Mar-20 18,234 3,481 23,591 989,954 Apr-20 8,058 2,015 14,268 715,322 May-20 8,626 3,911 27,740 1,119,089 Jun-20 16,809 4,206 41,590 1,101,169 Jul-20 23,075 5,228 43,738 1,236,643 Aug-20 17,291 6,478 42,191 1,318,070 Sep-20 28,101 6,670 43,293 1,341,099 Oct-20 29,959 7,755 </td <td>Jun-19</td> <td>23,421</td> <td>7,999</td> <td>39,247</td> <td>1,509,674</td>	Jun-19	23,421	7,999	39,247	1,509,674
Sep-19 21,812 5,816 29,848 1,267,150 Oct-19 23,072 6,388 32,457 1,333,995 Nov-19 11,421 7,733 32,962 1,403,153 Dec-19 18,681 7,674 35,706 1,512,243 Jan-20 26,391 5,104 27,166 1,136,560 Feb-20 11,151 6,111 32,309 1,350,570 Mar-20 18,234 3,481 23,591 989,954 Apr-20 8,058 2,015 14,268 715,322 May-20 8,626 3,911 27,740 1,119,089 Jun-20 16,809 4,206 41,590 1,101,169 Jul-20 23,075 5,228 43,738 1,236,643 Aug-20 17,291 6,478 42,191 1,318,070 Sep-20 28,101 6,670 43,293 1,341,099 Oct-20 29,959 7,755 47,611 1,358,922 Nov-20 22,225 7,369 </td <td>Jul-19</td> <td>23,559</td> <td>7,197</td> <td>36,341</td> <td>1,396,460</td>	Jul-19	23,559	7,197	36,341	1,396,460
Oct-19 23,072 6,388 32,457 1,333,995 Nov-19 11,421 7,733 32,962 1,403,153 Dec-19 18,681 7,674 35,706 1,512,243 Jan-20 26,391 5,104 27,166 1,136,560 Feb-20 11,151 6,111 32,309 1,350,570 Mar-20 18,234 3,481 23,591 989,954 Apr-20 8,058 2,015 14,268 715,322 May-20 8,626 3,911 27,740 1,119,089 Jun-20 16,809 4,206 41,590 1,101,169 Jul-20 23,075 5,228 43,738 1,236,643 Aug-20 17,291 6,478 42,191 1,318,070 Sep-20 28,101 6,670 43,293 1,341,099 Oct-20 29,959 7,755 47,611 1,358,922 Nov-20 22,225 7,369 47,724 1,199,137 Dec-20 28,620 10,721<	Aug-19	18,864	8,433	42,830	1,638,722
Nov-19 11,421 7,733 32,962 1,403,153 Dec-19 18,681 7,674 35,706 1,512,243 Jan-20 26,391 5,104 27,166 1,136,560 Feb-20 11,151 6,111 32,309 1,350,570 Mar-20 18,234 3,481 23,591 989,954 Apr-20 8,058 2,015 14,268 715,322 May-20 8,626 3,911 27,740 1,119,089 Jun-20 16,809 4,206 41,590 1,101,169 Jul-20 23,075 5,228 43,738 1,236,643 Aug-20 17,291 6,478 42,191 1,318,070 Sep-20 28,101 6,670 43,293 1,341,099 Oct-20 29,959 7,755 47,611 1,358,922 Nov-20 22,225 7,369 47,724 1,199,137 Dec-20 28,620 10,721 63,846 1,605,497 Jan-21 25,103 7,463<	Sep-19	21,812	5,816	29,848	1,267,150
Dec-19 18,681 7,674 35,706 1,512,243 Jan-20 26,391 5,104 27,166 1,136,560 Feb-20 11,151 6,111 32,309 1,350,570 Mar-20 18,234 3,481 23,591 989,954 Apr-20 8,058 2,015 14,268 715,322 May-20 8,626 3,911 27,740 1,119,089 Jun-20 16,809 4,206 41,590 1,101,169 Jul-20 23,075 5,228 43,738 1,236,643 Aug-20 17,291 6,478 42,191 1,318,070 Sep-20 28,101 6,670 43,293 1,341,099 Oct-20 29,959 7,755 47,611 1,358,922 Nov-20 22,225 7,369 47,724 1,199,137 Dec-20 28,620 10,721 63,846 1,605,497 Jan-21 25,103 7,463 46,843 1,106,286 Feb-21 26,215 9,046<	Oct-19	23,072	6,388	32,457	1,333,995
Jan-20 26,391 5,104 27,166 1,136,560 Feb-20 11,151 6,111 32,309 1,350,570 Mar-20 18,234 3,481 23,591 989,954 Apr-20 8,058 2,015 14,268 715,322 May-20 8,626 3,911 27,740 1,119,089 Jun-20 16,809 4,206 41,590 1,101,169 Jul-20 23,075 5,228 43,738 1,236,643 Aug-20 17,291 6,478 42,191 1,318,070 Sep-20 28,101 6,670 43,293 1,341,099 Oct-20 29,959 7,755 47,611 1,358,922 Nov-20 22,225 7,369 47,724 1,199,137 Dec-20 28,620 10,721 63,846 1,605,497 Jan-21 25,103 7,463 46,843 1,106,286 Feb-21 26,215 9,046 54,045 1,193,776 Mar-21 40,755 12,261	Nov-19	11,421	7,733	32,962	1,403,153
Feb-20 11,151 6,111 32,309 1,350,570 Mar-20 18,234 3,481 23,591 989,954 Apr-20 8,058 2,015 14,268 715,322 May-20 8,626 3,911 27,740 1,119,089 Jun-20 16,809 4,206 41,590 1,101,169 Jul-20 23,075 5,228 43,738 1,236,643 Aug-20 17,291 6,478 42,191 1,318,070 Sep-20 28,101 6,670 43,293 1,341,099 Oct-20 29,959 7,755 47,611 1,358,922 Nov-20 22,225 7,369 47,724 1,199,137 Dec-20 28,620 10,721 63,846 1,605,497 Jan-21 25,103 7,463 46,843 1,106,286 Feb-21 26,215 9,046 54,045 1,193,776 Mar-21 40,755 12,261 78,123 1,597,152 Apr-21 33,547 18,60	Dec-19	18,681	7,674	35,706	1,512,243
Mar-20 18,234 3,481 23,591 989,954 Apr-20 8,058 2,015 14,268 715,322 May-20 8,626 3,911 27,740 1,119,089 Jun-20 16,809 4,206 41,590 1,101,169 Jul-20 23,075 5,228 43,738 1,236,643 Aug-20 17,291 6,478 42,191 1,318,070 Sep-20 28,101 6,670 43,293 1,341,099 Oct-20 29,959 7,755 47,611 1,358,922 Nov-20 22,225 7,369 47,724 1,199,137 Dec-20 28,620 10,721 63,846 1,605,497 Jan-21 25,103 7,463 46,843 1,106,286 Feb-21 26,215 9,046 54,045 1,193,776 Mar-21 40,755 12,261 78,123 1,597,152 Apr-21 33,547 18,604 76,397 1,518,415 May-21 29,796 20,8	Jan-20	26,391	5,104	27,166	1,136,560
Apr-20 8,058 2,015 14,268 715,322 May-20 8,626 3,911 27,740 1,119,089 Jun-20 16,809 4,206 41,590 1,101,169 Jul-20 23,075 5,228 43,738 1,236,643 Aug-20 17,291 6,478 42,191 1,318,070 Sep-20 28,101 6,670 43,293 1,341,099 Oct-20 29,959 7,755 47,611 1,358,922 Nov-20 22,225 7,369 47,724 1,199,137 Dec-20 28,620 10,721 63,846 1,605,497 Jan-21 25,103 7,463 46,843 1,106,286 Feb-21 26,215 9,046 54,045 1,193,776 Mar-21 40,755 12,261 78,123 1,597,152 Apr-21 33,547 18,604 76,397 1,518,415 May-21 29,796 20,807 82,511 1,570,313 Jul-21 42,013 1	Feb-20	11,151	6,111	32,309	1,350,570
May-20 8,626 3,911 27,740 1,119,089 Jun-20 16,809 4,206 41,590 1,101,169 Jul-20 23,075 5,228 43,738 1,236,643 Aug-20 17,291 6,478 42,191 1,318,070 Sep-20 28,101 6,670 43,293 1,341,099 Oct-20 29,959 7,755 47,611 1,358,922 Nov-20 22,225 7,369 47,724 1,199,137 Dec-20 28,620 10,721 63,846 1,605,497 Jan-21 25,103 7,463 46,843 1,106,286 Feb-21 26,215 9,046 54,045 1,193,776 Mar-21 40,755 12,261 78,123 1,597,152 Apr-21 33,547 18,604 76,397 1,518,415 May-21 29,796 20,807 82,511 1,570,313 Jul-21 42,013 15,669 74,298 1,280,803 Aug-21 35,499 <	Mar-20	18,234	3,481	23,591	989,954
Jun-20 16,809 4,206 41,590 1,101,169 Jul-20 23,075 5,228 43,738 1,236,643 Aug-20 17,291 6,478 42,191 1,318,070 Sep-20 28,101 6,670 43,293 1,341,099 Oct-20 29,959 7,755 47,611 1,358,922 Nov-20 22,225 7,369 47,724 1,199,137 Dec-20 28,620 10,721 63,846 1,605,497 Jan-21 25,103 7,463 46,843 1,106,286 Feb-21 26,215 9,046 54,045 1,193,776 Mar-21 40,755 12,261 78,123 1,597,152 Apr-21 33,547 18,604 76,397 1,518,415 May-21 29,796 20,807 82,511 1,570,313 Jun-21 45,913 16,648 65,960 1,302,213 Jul-21 42,013 15,669 74,298 1,280,803 Aug-21 35,499	Apr-20	8,058	2,015	14,268	715,322
Jul-20 23,075 5,228 43,738 1,236,643 Aug-20 17,291 6,478 42,191 1,318,070 Sep-20 28,101 6,670 43,293 1,341,099 Oct-20 29,959 7,755 47,611 1,358,922 Nov-20 22,225 7,369 47,724 1,199,137 Dec-20 28,620 10,721 63,846 1,605,497 Jan-21 25,103 7,463 46,843 1,106,286 Feb-21 26,215 9,046 54,045 1,193,776 Mar-21 40,755 12,261 78,123 1,597,152 Apr-21 33,547 18,604 76,397 1,518,415 May-21 29,796 20,807 82,511 1,570,313 Jun-21 45,913 16,648 65,960 1,302,213 Jul-21 42,013 15,669 74,298 1,280,803 Aug-21 35,499 14,067 67,976 1,092,661 Sep-21 42,020	May-20	8,626	3,911	27,740	1,119,089
Aug-20 17,291 6,478 42,191 1,318,070 Sep-20 28,101 6,670 43,293 1,341,099 Oct-20 29,959 7,755 47,611 1,358,922 Nov-20 22,225 7,369 47,724 1,199,137 Dec-20 28,620 10,721 63,846 1,605,497 Jan-21 25,103 7,463 46,843 1,106,286 Feb-21 26,215 9,046 54,045 1,193,776 Mar-21 40,755 12,261 78,123 1,597,152 Apr-21 33,547 18,604 76,397 1,518,415 May-21 29,796 20,807 82,511 1,570,313 Jul-21 45,913 16,648 65,960 1,302,213 Jul-21 42,013 15,669 74,298 1,280,803 Aug-21 35,499 14,067 67,976 1,092,661 Sep-21 42,020 12,554 60,102 1,015,935 Oct-21 42,485 18,275 63,482 1,051,015 Nov-21 46,687 <	Jun-20	16,809	4,206	41,590	1,101,169
Sep-20 28,101 6,670 43,293 1,341,099 Oct-20 29,959 7,755 47,611 1,358,922 Nov-20 22,225 7,369 47,724 1,199,137 Dec-20 28,620 10,721 63,846 1,605,497 Jan-21 25,103 7,463 46,843 1,106,286 Feb-21 26,215 9,046 54,045 1,193,776 Mar-21 40,755 12,261 78,123 1,597,152 Apr-21 33,547 18,604 76,397 1,518,415 May-21 29,796 20,807 82,511 1,570,313 Jun-21 45,913 16,648 65,960 1,302,213 Jul-21 42,013 15,669 74,298 1,280,803 Aug-21 35,499 14,067 67,976 1,092,661 Sep-21 42,020 12,554 60,102 1,015,935 Oct-21 42,485 18,275 63,482 1,051,015 Nov-21 46,687	Jul-20	23,075	5,228	43,738	1,236,643
Oct-20 29,959 7,755 47,611 1,358,922 Nov-20 22,225 7,369 47,724 1,199,137 Dec-20 28,620 10,721 63,846 1,605,497 Jan-21 25,103 7,463 46,843 1,106,286 Feb-21 26,215 9,046 54,045 1,193,776 Mar-21 40,755 12,261 78,123 1,597,152 Apr-21 33,547 18,604 76,397 1,518,415 May-21 29,796 20,807 82,511 1,570,313 Jun-21 45,913 16,648 65,960 1,302,213 Jul-21 42,013 15,669 74,298 1,280,803 Aug-21 35,499 14,067 67,976 1,092,661 Sep-21 42,020 12,554 60,102 1,015,935 Oct-21 42,485 18,275 63,482 1,051,015 Nov-21 46,687 14,170 59,326 1,014,411 Dec-21 49,441	Aug-20	17,291	6,478	42,191	1,318,070
Nov-20 22,225 7,369 47,724 1,199,137 Dec-20 28,620 10,721 63,846 1,605,497 Jan-21 25,103 7,463 46,843 1,106,286 Feb-21 26,215 9,046 54,045 1,193,776 Mar-21 40,755 12,261 78,123 1,597,152 Apr-21 33,547 18,604 76,397 1,518,415 May-21 29,796 20,807 82,511 1,570,313 Jun-21 45,913 16,648 65,960 1,302,213 Jul-21 42,013 15,669 74,298 1,280,803 Aug-21 35,499 14,067 67,976 1,092,661 Sep-21 42,020 12,554 60,102 1,015,935 Oct-21 42,485 18,275 63,482 1,051,015 Nov-21 46,687 14,170 59,326 1,014,411 Dec-21 49,441 16,553 69,983 1,203,993	Sep-20	28,101	6,670	43,293	1,341,099
Dec-20 28,620 10,721 63,846 1,605,497 Jan-21 25,103 7,463 46,843 1,106,286 Feb-21 26,215 9,046 54,045 1,193,776 Mar-21 40,755 12,261 78,123 1,597,152 Apr-21 33,547 18,604 76,397 1,518,415 May-21 29,796 20,807 82,511 1,570,313 Jun-21 45,913 16,648 65,960 1,302,213 Jul-21 42,013 15,669 74,298 1,280,803 Aug-21 35,499 14,067 67,976 1,092,661 Sep-21 42,020 12,554 60,102 1,015,935 Oct-21 42,485 18,275 63,482 1,051,015 Nov-21 46,687 14,170 59,326 1,014,411 Dec-21 49,441 16,553 69,983 1,203,993	Oct-20	29,959	7,755		1,358,922
Jan-21 25,103 7,463 46,843 1,106,286 Feb-21 26,215 9,046 54,045 1,193,776 Mar-21 40,755 12,261 78,123 1,597,152 Apr-21 33,547 18,604 76,397 1,518,415 May-21 29,796 20,807 82,511 1,570,313 Jun-21 45,913 16,648 65,960 1,302,213 Jul-21 42,013 15,669 74,298 1,280,803 Aug-21 35,499 14,067 67,976 1,092,661 Sep-21 42,020 12,554 60,102 1,015,935 Oct-21 42,485 18,275 63,482 1,051,015 Nov-21 46,687 14,170 59,326 1,014,411 Dec-21 49,441 16,553 69,983 1,203,993	Nov-20	22,225	7,369	47,724	1,199,137
Feb-21 26,215 9,046 54,045 1,193,776 Mar-21 40,755 12,261 78,123 1,597,152 Apr-21 33,547 18,604 76,397 1,518,415 May-21 29,796 20,807 82,511 1,570,313 Jun-21 45,913 16,648 65,960 1,302,213 Jul-21 42,013 15,669 74,298 1,280,803 Aug-21 35,499 14,067 67,976 1,092,661 Sep-21 42,020 12,554 60,102 1,015,935 Oct-21 42,485 18,275 63,482 1,051,015 Nov-21 46,687 14,170 59,326 1,014,411 Dec-21 49,441 16,553 69,983 1,203,993	Dec-20	28,620	10,721	63,846	1,605,497
Mar-21 40,755 12,261 78,123 1,597,152 Apr-21 33,547 18,604 76,397 1,518,415 May-21 29,796 20,807 82,511 1,570,313 Jun-21 45,913 16,648 65,960 1,302,213 Jul-21 42,013 15,669 74,298 1,280,803 Aug-21 35,499 14,067 67,976 1,092,661 Sep-21 42,020 12,554 60,102 1,015,935 Oct-21 42,485 18,275 63,482 1,051,015 Nov-21 46,687 14,170 59,326 1,014,411 Dec-21 49,441 16,553 69,983 1,203,993	Jan-21	25,103	7,463	46,843	1,106,286
Apr-21 33,547 18,604 76,397 1,518,415 May-21 29,796 20,807 82,511 1,570,313 Jun-21 45,913 16,648 65,960 1,302,213 Jul-21 42,013 15,669 74,298 1,280,803 Aug-21 35,499 14,067 67,976 1,092,661 Sep-21 42,020 12,554 60,102 1,015,935 Oct-21 42,485 18,275 63,482 1,051,015 Nov-21 46,687 14,170 59,326 1,014,411 Dec-21 49,441 16,553 69,983 1,203,993	Feb-21	26,215	9,046	54,045	1,193,776
May-21 29,796 20,807 82,511 1,570,313 Jun-21 45,913 16,648 65,960 1,302,213 Jul-21 42,013 15,669 74,298 1,280,803 Aug-21 35,499 14,067 67,976 1,092,661 Sep-21 42,020 12,554 60,102 1,015,935 Oct-21 42,485 18,275 63,482 1,051,015 Nov-21 46,687 14,170 59,326 1,014,411 Dec-21 49,441 16,553 69,983 1,203,993	Mar-21	40,755	12,261	78,123	1,597,152
Jun-21 45,913 16,648 65,960 1,302,213 Jul-21 42,013 15,669 74,298 1,280,803 Aug-21 35,499 14,067 67,976 1,092,661 Sep-21 42,020 12,554 60,102 1,015,935 Oct-21 42,485 18,275 63,482 1,051,015 Nov-21 46,687 14,170 59,326 1,014,411 Dec-21 49,441 16,553 69,983 1,203,993	Apr-21	33,547	18,604	76,397	1,518,415
Jul-21 42,013 15,669 74,298 1,280,803 Aug-21 35,499 14,067 67,976 1,092,661 Sep-21 42,020 12,554 60,102 1,015,935 Oct-21 42,485 18,275 63,482 1,051,015 Nov-21 46,687 14,170 59,326 1,014,411 Dec-21 49,441 16,553 69,983 1,203,993	May-21	29,796	20,807	82,511	1,570,313
Aug-21 35,499 14,067 67,976 1,092,661 Sep-21 42,020 12,554 60,102 1,015,935 Oct-21 42,485 18,275 63,482 1,051,015 Nov-21 46,687 14,170 59,326 1,014,411 Dec-21 49,441 16,553 69,983 1,203,993	Jun-21	45,913	16,648	65,960	1,302,213
Sep-21 42,020 12,554 60,102 1,015,935 Oct-21 42,485 18,275 63,482 1,051,015 Nov-21 46,687 14,170 59,326 1,014,411 Dec-21 49,441 16,553 69,983 1,203,993	Jul-21	42,013	15,669		1,280,803
Oct-21 42,485 18,275 63,482 1,051,015 Nov-21 46,687 14,170 59,326 1,014,411 Dec-21 49,441 16,553 69,983 1,203,993	Aug-21	35,499	14,067	67,976	1,092,661
Nov-21 46,687 14,170 59,326 1,014,411 Dec-21 49,441 16,553 69,983 1,203,993	Sep-21	42,020	12,554	60,102	1,015,935
Dec-21 49,441 16,553 69,983 1,203,993	Oct-21	42,485	18,275	63,482	1,051,015
	Nov-21	46,687	14,170	59,326	1,014,411
Jan-22 42,780 11,983 63,093 991,573	Dec-21	49,441	16,553	69,983	1,203,993
	Jan-22	42,780	11,983	63,093	991,573

Feb-22	46,859	12,563	58,175	1,045,624
Mar-22	64,160	16,200	76,683	1,257,821
Apr-22	52,537	17,875	71,849	1,236,432
May-22	52,502	15,263	68,737	1,108,063
Jun-22	74,262	14,838	61,039	1,143,820
Jul-22	64,310	13,932	59,229	1,126,523
Aug-22	59,836	13,797	58,869	1,134,265
Sep-22	69,811	13,415	55,892	1,124,297
Oct-22	71,739	17,603	66,661	1,181,540
Nov-22	69,924	16,183	57,086	1,135,484
Dec-22	79,262	19,759	69,099	1,268,897
Jan-23	72,944	15,593	60,069	1,046,919
Feb-23	81,158	17,789	66,320	1,138,756
Mar-23	92,077	21,397	94,289	1,374,992
Apr-23	92,880	24,165	100,528	1,357,844
May-23	95,898	25,125	103,832	1,363,818
Jun-23	102,525	22,560	100,762	1,368,713
Jul-23	99,259	23,840	103,757	1,298,913
Aug-23	92,277	28,148	107,325	1,316,366
Sep-23	101,719	29,632	109,269	1,331,167
Oct-23	90,509	22,037	103,799	1,193,974
Nov-23	102,323	24,530	108,549	1,235,583
Dec-23	121,647	41,121	117,098	1,458,853
Jan-24	81,317	25,759	91,929	1,066,907
Feb-24	80,715	28,610	105,919	1,239,614
Mar-24	93,468	35,187	123,870	1,436,680
Apr-24	96,295	28,297	118,822	1,322,031
May-24	97,801	29,071	139,053	1,431,046
Jun-24	96,666	23,648	133,533	1,321,932

PEV Sales by Size (updated through June 2024)

Size	2024 Sales %	6 of PEVs
Two seater	0	0.0%
Minicompact	0	0.0%
Subcompact	3,058	0.4%
Compact	12,949	1.8%
Midsize	78,673	11.0%
Large	48,691	6.8%
Small Station Wagons	53,695	7.5%
Standard SUV	143,904	20.1%
Minivan	20,201	2.8%
Small SUV	322,263	45.0%
Pickup	33,400	4.66%
Total	716,834	100.0%



bp pulse Expands EV Charging Network with Simon Partnership

bp pulse has signed a deal with Simon Property Group to install and operate **ultra-fast EV charging Gigahubs** at 75 Simon locations across the US. This expansion will add over 900 charging bays, supporting nearly every make and model of **EVs**. The first locations will open to the public in early 2026.

Key Highlights:

- 75 Simon locations to host bp pulse Gigahubs.
- Over 900 ultra-fast charging bays will be added across the US.
- First locations will open to the public in early 2026.
- Expansion targets key regions: West Coast, East Coast, Sun Belt, and Great Lakes.
- Collaboration with Simon enhances retail offerings for EV drivers.

Richard Bartlett, CEO of bp pulse, stated: "We're pleased to complete this deal with Simon and expand our ultra-fast charging network footprint in the US. The Simon portfolio aligns with bp pulse's strategy to deploy ultra-fast charging across the West Coast, East Coast, Sun Belt and Great Lakes, and we are thrilled to team up with Simon so that EV drivers have a range of retail offerings at their impressive destinations."

Chip Harding, Executive Vice President of Simon Brand Ventures, added: "Simon is committed to offering best-in-class brands, amenities, experiences, and sustainable practices to our shoppers and the communities that we serve. We look forward to expanding our EV charging options across the Simon portfolio with bp pulse."

bp pulse is focused on delivering **charging infrastructure** in locations that customers want and need. Simon destinations are the latest sites identified for the bp pulse EV charging network in the US, following earlier initiatives like the build-out of the Gigahub network near airports and major metropolitan areas, and the installation of EV charging across bp's branded convenience stores and TravelCenters of America network.

Sujay Sharma, CEO of bp pulse Americas, remarked: "As a committed long-term infrastructure player with a global network of EV charging solutions, bp pulse intends to continue to seek and build

transformative industry collaborations in real estate required to scale our network and match the demand of current and future EV drivers."

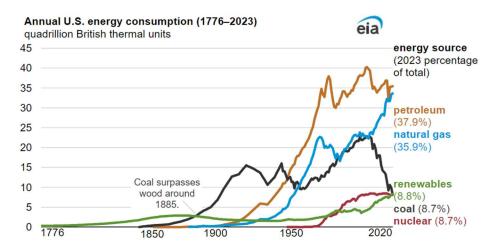
The charging stations will be accessible via the Simon electric vehicle charging webpage, major map platforms, and the **bp pulse app**. The use of bp pulse's proprietary energy management solution, **Omega**, will optimize energy usage on-site.

About Simon: Simon Property Group, an S&P 100 company, owns premier shopping, dining, entertainment, and mixed-use destinations. Their properties in North America, Europe, and Asia provide community gathering places for millions of people and generate billions in annual sales.

About bp pulse: bp pulse is bp's electric vehicle (EV) charging business, focused on fast and reliable charging for EV drivers and commercial fleets. Partnering with some of the world's biggest businesses, bp pulse is developing the Gigahub™ network, a series of large EV high-speed charging hubs in high-demand locations. The company aims to expand its network of public EV charging stations to more than **100,000 worldwide by 2030**.

JULY 3, 2024

How has energy use changed throughout U.S. history?



Data source: U.S. Energy Information Administration, Monthly Energy Review. Pre-1949 data based on Energy in the American Economy, 1850–1975: Its History and Prospects and U.S. Department of Agriculture Circular No. 641, Fuel Wood Used in the United States 1630–1930 Note: Data use captured energy approach to account for wind, hydro, solar, and geothermal.

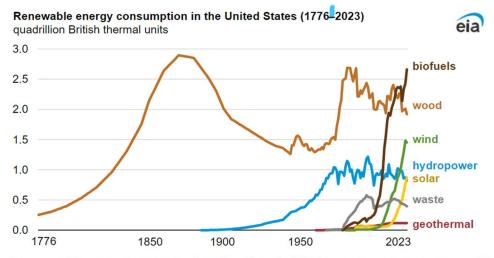
In 2023, 94 quadrillion British thermal units (quads) was consumed in the United States, a 1% decrease from 2022, according to our *Monthly Energy Review*. Fossil fuels—petroleum, natural gas, and coal—accounted for nearly 83% of total U.S. energy consumption in 2023. Nonfossil fuel energy—from renewable sources and from nuclear—accounted for the other 17%. In 2023, petroleum remained the most-consumed fuel in the United States, as it has been for the past 73 years, and <u>renewables exceeded coal</u> for the first time in about 140 years.

How has energy use changed throughout U.S. history?

When the Declaration of Independence was signed in 1776, <u>wood</u>, a renewable energy source, was the largest source of energy in the United States. Used for heating, cooking, and lighting, wood remained the largest U.S. energy source until the late 1800s, when coal surpassed it.

Early use of water to power grist, lumber, and other milling operations is not well quantified and not included in our data, but such mills were common throughout early U.S. history. The first industrial use of hydropower to generate electricity in the United States was to power lamps at a chair factory in Grand Rapids, Michigan, in 1880. The world's first hydroelectric power plant to sell electricity to the public opened on the Fox River near Appleton, Wisconsin, in 1882.

Renewable energy did not become a more significant part of U.S. energy again until more recently. Biofuels became the most-consumed U.S. renewable energy source in 2016, surpassing wood. In the 1980s, the United States began to consume more ethanol blended with petroleum motor gasoline and later biodiesel and renewable diesel blended with petroleum diesel. Renewable diesel can be substituted for petroleum diesel while chemical differences limit the amount of biodiesel that can be blended into petroleum diesel. U.S. renewable diesel surpassed biodiesel use for the first time in 2022.



Data source: U.S. Energy Information Administration, *Monthly Energy Review*. Pre-1949 data based on *Energy in the American Economy*, 1850–1975: Its History and Prospects and U.S. Department of Agriculture Circular No. 641, Fuel Wood Used in the United States 1630–1930 Note: Data use captured energy approach to account for wind, hydro, solar, and geothermal.

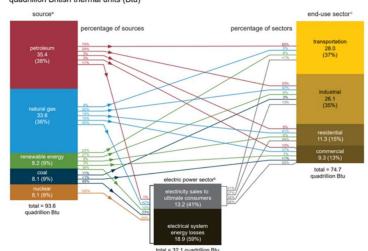
Electricity generation from zero-carbon sources such as wind and solar has <u>increased rapidly</u> in recent years. In 2022, U.S. energy consumption from renewable sources <u>surpassed that from nuclear</u> for the first time since 1984. U.S. <u>nuclear</u> energy consumption began in the late 1950s and has remained fairly constant since the early 2000s.

<u>Coal</u> was the largest source of U.S. energy for about 65 years, from 1885 until 1950, when petroleum surpassed it. Early uses of coal included many purposes that are no longer common, such as in stoves for home heating and in engines for train and boat transportation. Since the 1960s, nearly all coal consumed in the United States has been used to generate electricity.

<u>Petroleum</u> remains the most-consumed source of energy in the United States as it has been since 1950. Petroleum products, such as motor gasoline, diesel, jet fuel, and propane, are commonly used across all sectors of the modern U.S. economy, from transportation to industrial chemicals and plastics.

Natural gas is the second-largest source of U.S. energy consumption as it has been most years since it surpassed coal in 1958. Natural gas was once seen as a waste byproduct of crude oil production but has become a common energy source used for heating and electricity generation. In part because of recent advancements in U.S. drilling technology, the availability of natural gas in the United States increased rapidly, and its consumption almost surpassed petroleum in 2020 when the effects of the Covid pandemic limited the amount of energy consumed for transportation.

U.S. energy consumption by source and sector, 2023 quadrillion British thermal units (Btu)



How did U.S. energy consumption change in 2023?

Renewable energy consumption in the United States increased 2% from 2022 to a <u>record</u> 8.2 quads in 2023, largely because of increased use of <u>biofuels</u> in transportation and <u>solar</u> to generate electricity. In 2023, U.S. <u>wind</u> consumption decreased for the first time in 25 years.

Coal consumption declined to 8.2 quads in 2023, the least since around 1900. U.S. coal consumption has <u>decreased by more than half</u> since its peak in 2005, largely because of <u>less coal use for electricity</u> generation.

Nuclear energy consumption totaled 8.1 quads in 2023, a slight increase compared with 2022. The small increase largely came because of the new <u>Vogtle Unit 3</u> reactor in Georgia in July 2023.

Petroleum consumption in the United States remained below <u>its 2005 peak</u>, totaling 35.4 quads in 2023. Most petroleum energy was consumed in transportation. Although use of <u>electric vehicles</u> has increased, petroleum remains the predominant fuel for cars, trucks, and planes.

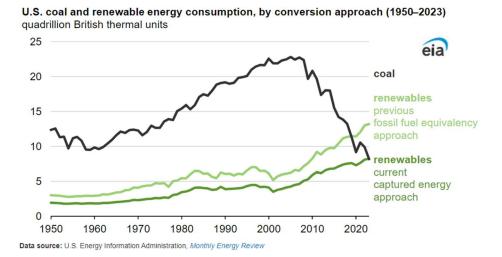
U.S. natural gas consumption reached a <u>record</u> 33.6 quads in 2023, largely because of increased use for electricity. More natural gas has been consumed in the U.S. <u>electric power sector</u> than in any other economic sector every year since 2018.

How do we compare different types of energy to one another?

We use the common unit of heat called British thermal units to compare energy across sources and sectors.

Beginning with our data release for 2023, <u>we changed</u> our approach to converting the electricity generated by non-combustible renewables to British thermal units, which altered our assessment of when renewable consumption passed coal consumption.

Under the *captured energy approach* we now use, U.S. consumption of <u>renewables surpassed coal in 2023</u> for the first time since about 1885. Under our previous *fossil fuel equivalency approach*, <u>renewables had surpassed coal in 2019</u>.



Principal contributors: Mickey Francis, Owen Comstock

e Translate of excerpts from Nouveau Front Populaire "Contrat de legislature"

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FRONT POPULAIRE



Engage in commercial negotiations by guaranteeing a floor and remunerative price to farmers and by taxing superprofits of agro-industrialists and mass retailers

Abolish the 10% Macron tax on energy bills, cancel the scheduled increase in the pric gas on July 1, cap bank charges, make the first KWH free, abolish electricity, heat and cuts (excluding truce winter), cancel the Macron reforms on the income of active soli (RSA)

Remove the flat tax and reinstate the exit tax

Establish a mileage tax on imported products

Regulate banking and finance to avoid new crises and finance the real economy:
Increase bank reserves to cope with climate risks

- · Zero bank financing for fossil fuels starting with new projects
- Reinforced taxation of financial transactions

Increase the resources of the Ministry of Sports to 1% of the budget the State and lift cap on taxes allocated to amateur sport

Tax the richest at European level to increase own resources of the European Union but

Generalize the taxation of <u>superprofits</u> at the European level



https://www.smithsonianmag.com/history/the-hidden-history-of-the-hollywood-sign-180982518/

HISTORY | JULY 13, 2023

The Hidden History of the Hollywood Sign

Now 100 years old, the iconic billboard started out as an advertisement for an upscale housing development



"The sign has become a worldwide symbol of the Hollywood of the imagination," says cultural historian Leo Braudy, "and its nine letters allow anyone who sees it to fill it with whatever meaning they want." Thomas Wolf via Wikimedia Commons under CC BY-SA 3.0

Nathan Smith

History Correspondent

Since its installation on a hill overlooking Los Angeles in 1923, the <u>Hollywood sign</u> has served as a <u>billboard</u> for a real estate development, a <u>backdrop</u> for countless films and television shows, and a <u>decaying reminder</u> of silver screen excess. Made up of white block letters spelling out "Hollywood" (originally "Hollywoodland"), the sign represents a California neighborhood but isn't actually located there. Instead, it sits on nearby <u>Mount Lee</u> in the Santa Monica Mountains.

<u>Recently refurbished</u> to mark its 100th anniversary, the sign has a far more checkered history than its clean, newly repainted letters might suggest. It was never meant to be a tourist destination. Instead, it started out as an advertisement for an upscale housing development called Hollywoodland. In 1932, it was the <u>site of a suicide</u>; in the 1960s, it fell into disrepair, becoming "a glaring badge of dishonor—rusted, dilapidated, soon to literally crumble under its own weight," according to the nonprofit <u>Hollywood Sign Trust</u>.



A current photograph of the Hollywood sign Courtesy of the Hollywood Sign Trust

Nowadays, the sign's chief purpose is to celebrate the physical heartland of filmmaking. "The Hollywood sign is a perfect representation of Hollywood the place," says <u>Michael Schulman</u>, a staff writer at the <u>New Yorker</u> and the author of <u>Oscar Wars: A History of Hollywood in Gold, Sweat and Tears</u>. "Like an old movie set, it's a showbiz illusion: two-dimensional and only presentable from the front."

But the sign also speaks to the lofty aims this place represents, such as fame and fortune. "Instead of looking at the Liberty Bell or the Lincoln Memorial and appreciating their importance and the history they represent, we look at the Hollywood sign and it looks back at us, enlarging our sense of our prestige by its symbolic aura," writes cultural historian Leo Braudy in The Hollywood Sign: Fantasy and Reality of an American Icon.

The sign's story begins in the early 20th century, when an area known as <u>Hollywood</u> (the origins of this name are <u>up for debate</u>) began attracting people from across the United States to its <u>burgeoning film industry</u>. Established by real estate developer <u>Harvey Henderson Wilcox</u> in 1887, the California community came into its own under <u>H.J. Whitley</u>, who was nicknamed the "Father of Hollywood" for his efforts to transform the area into a bustling suburb.

Hollywood's first movie studio opened on Sunset Boulevard in 1911, and over the next several years, more than a dozen other companies followed suit. Thanks to its <u>varied landscape</u>; ideal filming climate; and distance from the East Coast, where Thomas Edison was <u>suing production</u> <u>companies</u> for <u>technology infringement</u>, the region held enormous appeal for moviemakers and aspiring actors alike.



An aerial view of a Hollywood studio in 1923 Public domain via Wikimedia Commons

Early Hollywood was both a <u>wild spectacle</u> and a place governed by strict rules, with the <u>studio system</u>—in which five studios dominated the film industry—<u>replacing</u> independent moviemaking and wielding <u>unprecedented control</u> over actors' lives. Following the construction of gaudy <u>movie palaces</u> like the <u>Grauman's Egyptian Theater</u> in 1922 and <u>Grauman's Chinese Theater</u> in 1927, the neighborhood became an arena for celebrity and flashy publicity.

Industry growth created real estate opportunities, too. In the early 1920s, railroad tycoons Eli P. Clark and Moses Sherman partnered with Los Angeles Times publisher Harry Chandler and real estate developers Tracy E. Shoults and Sidney H. Woodruff to build an exclusive hillside community called Hollywoodland. As Braudy writes, the addition of the suffix "land" was likely part of a slick marketing scheme, perhaps in tribute to Lewis Carroll's Alice's Adventures in Wonderland or "Neverland" in J.M. Barrie's Peter Pan.

To promote the development, the syndicate <u>erected a billboard</u> bearing its name. The exact timing of the project—and who came up with the idea for the sign—is disputed, but the <u>Hollywood Sign Trust</u> notes that construction was completed by December 1923.



A 1920s photo of workers posing in front of the Hollywoodland sign Courtesy of the Hollywood Sign

The bold, sans serif letters that spelled out "Hollywoodland" each stood 30 feet wide and nearly 45 feet tall. Workers spent 60 days anchoring the panels to the ground at a total cost of \$21,000 (around \$370,000 today). By the end of the year, some 4,000 lights adorned the display, which the *Los Angeles Evening Express* described as a "gigantic electric sign, the largest in the world, [which] vies with the stars in the luminous beauty." Originally slated to stay up for just 18 months, the sign remained standing long beyond that.

In the years following the sign's debut, Chandler's Los Angeles

Times ran <u>regular advertisements</u> promoting the Hollywoodland development as a refuge from city living. But the Great Depression took its toll on the real estate syndicate (not to mention the <u>film industry</u>), which was dissolved in 1933. The sign's new owner, the M.H. Sherman Company, found the electricity-powered display too expensive to maintain and soon decided to abandon it.

Around this same time, a tragedy irrevocably changed the folklore of the first Hollywoodland billboard. On September 16, 1932, Peg Entwistle, a 24-year-old British stage actress who'd moved to Los Angeles to pursue a career in film, reportedly hiked to the sign, climbed up a worker's ladder propped against the letter "H" and jumped to her death. Two days later, a hiker found Entwistle's purse, which contained a suicide note that read, "I am afraid I am a coward. I am sorry for everything. If I had done this a long time ago, it would have saved me a lot of pain. P.E."







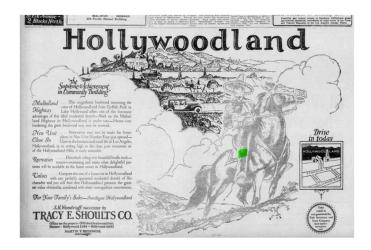
Entwistle and William Gillette in a Broadway production of Sherlack Holmes Public demain via Wikimedia Commons

Popular lore suggests Entwistle's apparent failure to make it in Hollywood led to her suicide. "Although her suicide note makes no mention of show business, her death was quickly turned into a cautionary tale about the desperate urge [for] Hollywood fame," Braudy tells *Smithsonian* magazine. The *Los Angeles Times* helped popularize this notion in a September 19 article headlined "Suicide Laid to Film Jinx," attributing her death to "blasted hopes for a screen career commensurate with the brilliant success she had enjoyed on the stage."

Salacious headlines moralized the tragedy for the masses but also hinted at other hidden social concerns percolating in Hollywood. The story "was part myth but [also] reflected a real anxiety

about the hordes of people who were fleeing their Depression-squeezed towns to try their luck in pictures," says Schulman.

Looking back, it's tempting to pinpoint Entwistle's suicide as the moment the Hollywoodland sign shifted from a real estate advertisement to a metaphor for the impossibility of making it in La La Land. In *Hollywood Babylon*, *Kenneth Anger*'s sensationalized 1959 book on alleged Tinseltown scandals, the filmmaker and author claimed that "other disillusioned starlets followed her lead, and the Hollywood sign became a notorious signing-off place." For decades, claims of the actress <u>haunting the area</u> persisted, with visitors <u>reporting</u> seeing a disheveled blonde woman appear and then suddenly vanish.



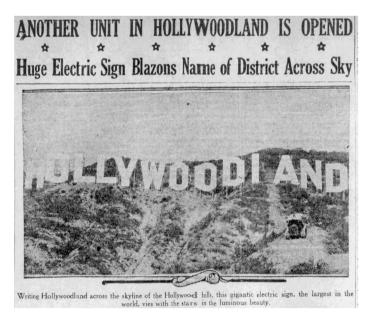
A December 1923 advertisement for Hollywoodland The Los Angeles Times via Newspapers.com

But Braudy traces the portrayal of Entwistle's death as a tragic turning point in the billboard's history to the 1970s, when observers revived the story amid renewed interest in the sign. As he <u>writes</u> in his book:

Despite Entwistle's suicide, the sign for most of America and for Hollywood itself remained what it had been at the start—another billboard with no special claim to be the prime symbol of the movie business. ... For 40 years after Peg Entwistle's death, there is nothing about her suicide in the Los Angeles Times, nothing about the significance of her leap from the reproachful sign that first lures and then denies its worshippers.

Without a dedicated maintenance budget, the sign started to fall apart. According to a <u>brochure</u> published by the Hollywood Sign Trust, the second "O" collapsed during a windstorm in September 1936, and two more letters followed over the next two and a half years. By 1944, the sign had also lost <u>its opening "H"</u> to strong winds. (An urban legend falsely blamed the sign's former caretaker, <u>Albert Kothe</u>, for losing control of his car while drunk and crashing through the giant letter.) In December 1944, the M.H. Sherman Company donated the aging sign and the surrounding 425-acre site to the City of Los Angeles, which formally accepted the offer in January 1945.

The ensuing years brought debate over the increasingly dilapidated sign's fate. In 1947, the Los Angeles Recreation and Parks Commission called it an eyesore and wanted it torn down, but after locals protested, the Hollywood Chamber of Commerce stepped in and offered to restore it. By the end of 1949, the sign had been refurbished and the "land" suffix removed.



A photo of the Hollywoodland sign in a December 1923 newspaper article *Los Angeles Evening Express* <u>via Newspapers.com</u>

The Hollywood billboard's rechristening took place at a time of <u>immense change</u> for the film industry. As television <u>gained popularity</u>, movie studios struggled to compete, and the studio system <u>fell out of favor</u>, bringing a close to the so-called <u>Golden Age</u> of Hollywood. Investigations led by the <u>House Un-American Activities Committee</u> and Senator <u>Joseph McCarthy</u> targeted supposed communist sympathizers in the entertainment business, creating an environment of widespread paranoia.

During the 1940s and '50s, Los Angeles was often depicted on screen as a city of <u>crime</u>, <u>corruption</u> and adolescent rebellion. The sign fared no better in maintaining its image (or its refurbished status), becoming a "site of drug use and casual sex, reflecting the general metamorphosis of Los Angeles itself from the glitz and glamour of the 1930s to the film noir of the 1950s," says Braudy. Indeed, the 1954 film <u>Down Three Dark Streets</u> shows a gunfight happening by the then weather-worn, run-down sign.

Fast-forwarding a decade, the sign <u>continued to corrode</u> in plain sight, mirroring the mass exodus of residents from Hollywood to Los Angeles' suburbs. "Television was eating away at audiences, the studio moguls were graying, and the movies struggled to connect with the youth audience," says Schulman. It was only in the early 1970s that locals expressed interest in another restoration campaign. "Los Angeles was beginning to be self-conscious about its history in other ways," says Braudy, "[so] some locals began to look at [the sign's] tattered condition and contribute to its repair and upkeep."



A photo of the sign in the 1970s, with a banner calling for its restoration covering the letter "D" Courtesy of the Hollywood Sign Trust

The Hollywood Chamber of Commerce again sought funds to restore the billboard, recruiting *Sunset Boulevard* star Gloria Swanson for the September 1973 unveiling. But when the time came for the ceremony, a thick fog enveloped the Hollywood hills. "A horde of cameramen were bused to the sign Friday night to record ... Swanson flipping the switch" on floodlights rented for the event, the *Los Angeles Times* reported. "But instead of the sign popping into view, the light beams revealed a dense fog bank."

Also in 1973, a Los Angeles heritage commission declared the 50-year-old sign a <u>cultural</u> <u>landmark</u>. Over the next few years, the billboard appeared in multiple high-profile action movies as a visible relic of the Golden Age of Hollywood. In the 1974 film <u>Earthquake</u>, the letters fray, cascading down the hill one at a time; in the 1978 version of <u>Superman</u>, they <u>fall forward</u> during an earthquake. Steven Spielberg's 1979 war comedy film, <u>1941</u>, shows a pilot shooting at the sign.

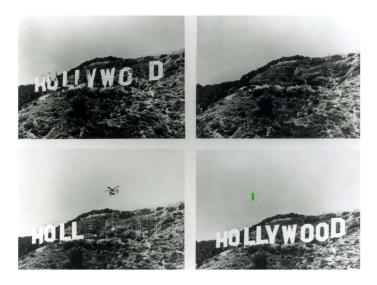


The sign's increasingly visible cultural status inspired pranksters, too. On January 1, 1976, 22-year-old art student <u>Danny Finegood</u> changed "Hollywood" to "<u>Hollyweed</u>" by draping pieces of fabric over the letters. Timed to acknowledge the passage of a California law decriminalizing the possession of small amounts of marijuana for personal use, the prank earned Finegood an A on an art school assignment.

Another artist, 30-year-old Zachary Cole Fernandez, repeated Finegood's stunt in 2017, describing his efforts to the *New York Times* as more of an art installation than a prank.

Authorities disagreed, charging Fernandez with trespassing. Other <u>alterations to the sign</u> run the gamut from "Holywood," in honor of Pope John Paul II's <u>visit</u> to Los Angeles in September 1987; "Jollygood" in 1993; and "Hollyboob" in 2021.

The scope of the sign's 1973 restoration was limited, including "few, if any, structural repairs," according to the trust pamphlet. Within a few years, the sign was again in terrible shape. Termites had infested the wood. The third letter "O" and the top of the "D" had fallen down the hill, and the bottom of the second "L" had been damaged by arsonists. The Hollywood Chamber of Commerce stated it needed \$250,000 (more than \$1.1 million today) to completely rebuild the sign, so in June 1978, Hugh Hefner, founder of *Playboy* magazine, stepped in to help, throwing a fundraiser that offered celebrities the chance to sponsor a letter for \$27,700 each. Singer Andy Williams, rock star Alice Cooper and Kelley Blue Book founder Les Kelley were among the luminaries who donated to the cause.



Stages of the 1978 rebuild of the Hollywood sign Courtesy of the Hollywood Sign Trust

Two months later, workers demolished the sign, removing the fallen letters and replacing them with corrugated metal panels. The new sign debuted in November 1978, clocking in at 450 feet long and 480,000 pounds. It's the same billboard seen today, with a regular paint job or two over the decades to keep it gleaming. In recent decades, copycat versions have popped up in <u>Ireland</u>, <u>France</u>, the <u>Philippines</u> and elsewhere, testifying to the Hollywood sign's enduring resonance around the world.

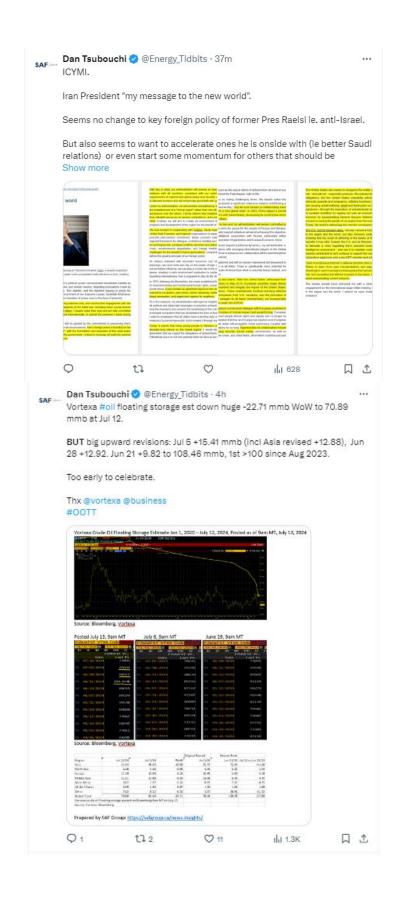
A century after its original installation, the Hollywood sign has suffered through bad press, aging pains and multiple facelifts—an intriguing parallel to some of the stars living in the city below. "The sign has become a worldwide symbol of the Hollywood of the imagination," Braudy says, "and its nine letters allow anyone who sees it to fill it with whatever meaning they want."



A contemporary view of the back of the Hollywood sign <u>Public domain via Wikimedia Commons</u>

Nathan Smith | READ MORE

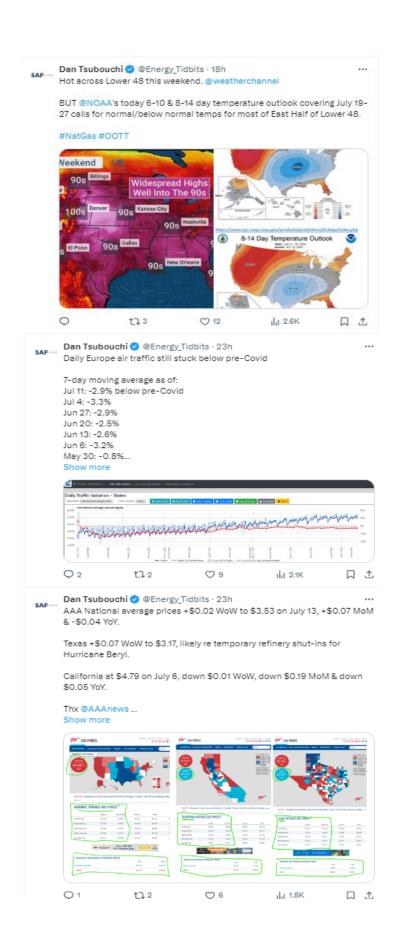
Nathan Smith is a culture writer. His writing has appeared in *Esquire*, *Rolling Stone* and the *Observer*. Website: nathanrsmith.org

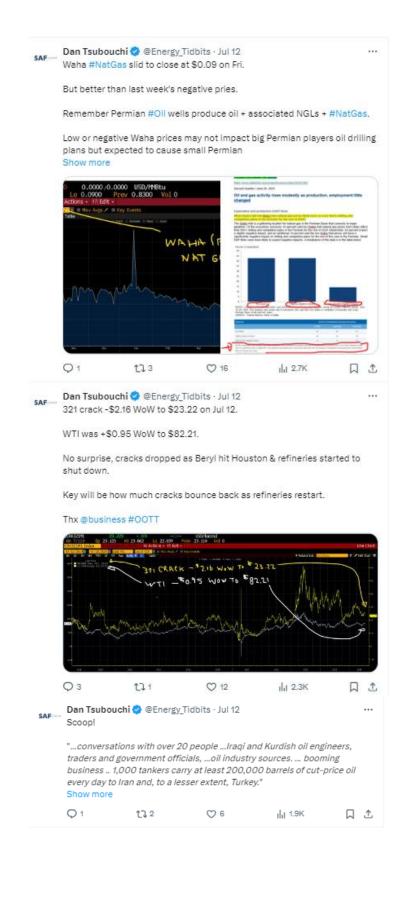


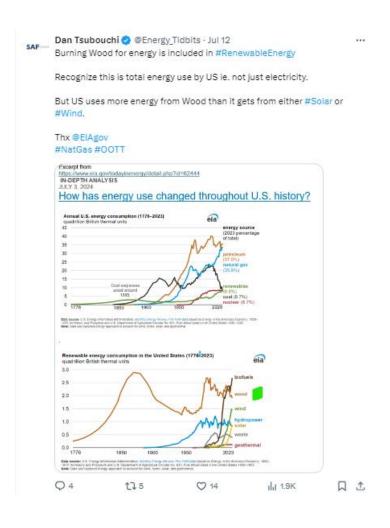


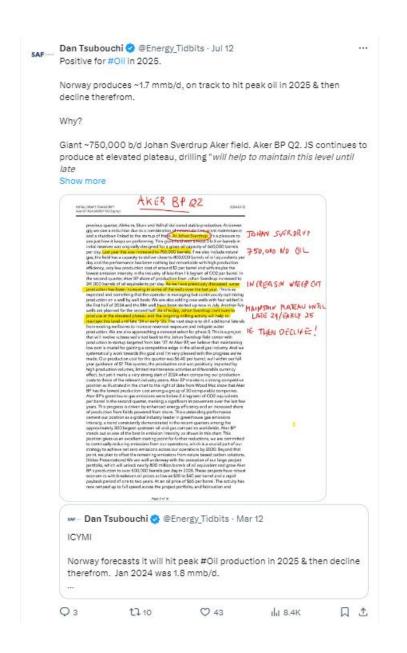
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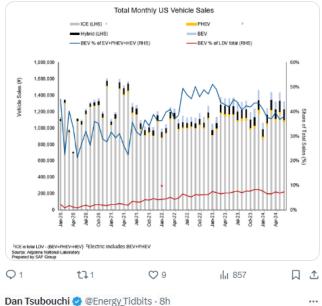


Dan Tsubouchi @Energy_Tidbits · 1h
Better month for EVs but still lost share in 2024.

Total US LDV sales -7.62% MoM, -109,114 to 1.32 mm in June.

BEVs: -1.16% MoM, -1,135 to 96,666. 7.3% share PHEVs: -18.65% MoM, -5,423 to 23,648. 1.8% share HEVs: -4.0% MoM, -5,520 to 133,533. 10.1% share ICE: -8.33% MoM,

Show more



Al Data Center 101.

Need #NatGas baseload if want to add renewables.

"we've built a substantial amount of highly efficient #NatGas generation in the last decade. That has allowed us to add in quite a few renewables"\$D CEO, #1 power to data centers in the world.

Also "we're Show more





"makes buyers look for cheaper homes. You can see that in the months' supply of homes for sale in May by price tier. It is the lowest in the \$100k-\$500k price range because that's where most demand lives. And that is despite the fact supply has increased the most in those lower Show more



Dan Tsubouchi 🐶 @Energy_Tidbits · 23h ... China stocks continue to decline. Added CSI300 performance to @business graph to remind periods where Chinese stock trading activity falls typically link to a decline in CSI300 @business reminds 3rd plenum of China communist party central committee is next week! #OOTT China Stock Trading Activity Falls Turnover slows ahead of Plenum 0 171 01 口土 ılı 1.3K Dan Tsubouchi 🤣 @Energy_Tidbits · 8h For those not near their laptop, @EIAgov just released #Oil #Gasoline #Distillates inventory as of July 5 at 8:30am MT. Table below compares EIA @business expectations [Note only 4 analysts in survey] and vs @APlenergy yesterday. Prior to release, WTI was \$81.60. #OOTT Oil/Products Inventory July 5: EIA, Bloomberg Survey Expectations, API (million barrels) Oil API EIA Expectations 1.00 -1 92 -3 44 Gasoline -2.01 -1.00 -2.95 Distillates 0.50 4.88 2.34 -0.57 0.50 -2.53 Note: Oil is commercial. So excludes a +0.5 mmb build in SPR for the July 5 week

Note: Included in the oil data, Cushing had a 0.72 mmb draw for July 5 week

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Source EIA, Bloomberg Prepared by SAF Group

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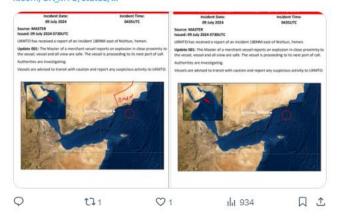


Dan Tsubouchi ② @Energy_Tidbits · Jul 9

UKMTO, explosion in close proximity to merchant ship 180NM east of Nishtun, Yemen.

Note I added approx. Oman border as this also remind Houthis launch drones at ships south of Oman in Arabian Sea.

#OOTT x.com/UK_MTO/status/...

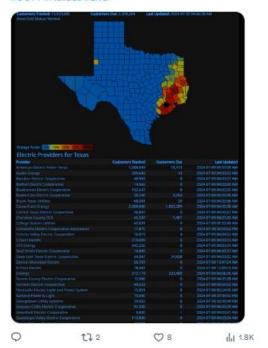


Reminder great live power outage map for all of US from @PowerOutage_us. Can drill down to county level. Texas map at poweroutage.us/area/state/tex....

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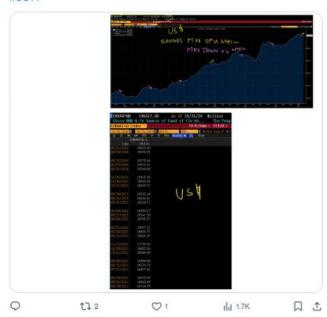
#OOTT #NatGas #LNG

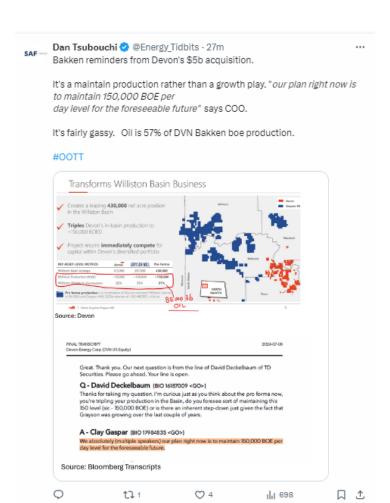


Household savings increased MoM in May.

Whereas most years household savings decrease MoM in April and again MoM in May before increasing MoM in June.

Thx @business #OOTT





Dan Tsubouchi @ @Energy_Tidbits · 3h

2.6 million Texas customers without power primarily due to Hurric

 $2.6\,\mathrm{million}$ Texas customers without power, primarily due to Hurricane Beryl.

Reminder great live power outage maps by @PowerOutage_us. can drill down from US to county level.

Texas link is poweroutage.us/area/state/tex...

#OOTT #NatGas #LNG



Dan Tsubouchi @ @Energy_Tidbits · 8h
Why?

If accurate, why would Saudis resume attacks on the Houthis?

Especially following \(\bar{\circ}\) Houthi leader gave firm, clear warning to Saudi that Houthis will respond.

IF accurate, would seem Houthis almost obligated to hit back at Saudi.

#OOTT



