

Energy Tidbits

321 Crack Spreads \$33.00 Provide Big Margins for Refiners to Buy & Process as much Oil as Possible

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Short-Term Energy Outlook

Overview

2023	2024	2025
\$82	\$87	\$85
\$3.50	\$3.50	\$3.40
12.9	13.2	13.7
\$2.50	\$2.30	\$2.90
12	12	14
42%	42%	41%
17%	15%	14%
22%	24%	25%
19%	19%	19%
2.5%	2.6%	1.7%
4.8	4.8	4.7
	\$82 \$3.50 12.9 \$2.50 12 42% 17% 22% 19% 2.5%	\$82 \$87 \$3.50 \$3.50 12.9 13.2 \$2.50 \$2.30 12 12 42% 42% 17% 15% 22% 24% 19% 19% 2.5% 2.6%

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

- Global oil markets. As a result of OPEC+ extending crude oil production cuts, we have reduced our forecast for global oil production growth in 2024. The lower growth contributes to significant global oil inventory declines in our forecast for the second quarter of 2024 (2Q24). Because of falling inventories, we now expect the Brent crude oil spot price will average \$88 per barrel (b) in 2Q24, up \$4/b from our February STEO, and we expect the Brent price will average \$87/b this year.
- U.S. retail gasoline prices. We forecast the U.S. average retail gasoline price will average about \$3.50 per gallon (gal) this year, almost 20 cents/gal higher on an annual average basis in 2024 compared with the February STEO, driven by higher crude oil prices. Although still lower than 2023 over the course of the year, we expect nominal gasoline prices from May through July will exceed prices for those same months in 2023.
- Natural gas prices. We expect the Henry Hub spot price to remain below \$2.00 per million British thermal units (MMBtu) in 2Q24 as the winter heating season ends with natural gas inventories 37% above the five-year average. The Henry Hub spot price averaged \$1.72/MMBtu in February (30% lower than in our February STEO), a record low adjusted for inflation. Low prices were partially driven by reduced natural gas consumption in the residential and commercial sectors this winter (November—March).
- Natural gas production. We forecast that U.S. dry natural gas production will remain unchanged in March from February at just under 104 billion cubic feet per day (Bcf/d). We expect lower natural

gas prices to cause slight declines in natural gas production the remainder of the year, and we do not expect that natural gas production will return to its December 2023 record of 106 Bcf/d during the forecast period. Forecast U.S. dry natural gas production averages 103 Bcf/d in 2024, down slightly from 2023. Production increases to 104 Bcf/d in 2025, driven by expected growth in associated natural gas production in the Permian Basin and growth in LNG export demand.

- **Electricity generation.** We expect utility-scale solar generation to provide 6% of U.S. electricity generation in 2024, up from 4% in 2023 and supported by a 36-gigawatt increase in solar generating capacity. By contrast, we expect coal to provide 15% of generation this year, down from 17% in 2023.
- Macroeconomics. Following the release of the Bureau of Economic Analysis's end-of-2023 advance
 estimate of GDP and based on updates to the S&P Global macroeconomic model, we have raised
 our forecast of U.S. GDP growth from our February STEO to 2.6% in 2024 and 1.7% in 2025.

Notable forecast changes

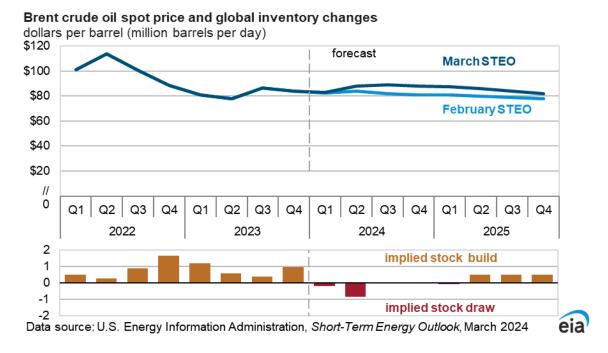
Current forecast: March 12, 2024; previous forecast: February 6, 2024	2024	2025
Global oil inventory change (million barrels per day)	-0.3	0.4
Previous forecast	-0.1	0.5
Change	-0.2	-0.1
Brent spot price (dollars per barrel)	\$87	\$85
Previous forecast	\$82	\$79
Percentage change	5.6%	6.7%
Retail gasoline price (dollars per gallon)	\$3.50	\$3.40
Previous forecast	\$3.30	\$3.30
Percentage change	5.0%	4.1%
Henry Hub spot price (dollars per million British thermal units)	\$2.30	\$2.90
Previous forecast	\$2.70	\$2.90
Percentage change	-14.4%	0.0%
Real gross domestic product (percentage)	2.6%	1.7%
Previous forecast	1.8%	1.6%
Percentage point change	0.8	0.2

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 \$83 per barrel (b) in February, an increase of \$3/b from January. Prices rose in February in part due to continuing uncertainty and increased risk around the attacks targeting commercial ships transiting the Red Sea shipping channel, as well as an anticipated extension to voluntary OPEC+ production cuts, which were officially announced on March 4. The OPEC+ voluntary production cuts are an extension of the existing production cuts that were announced on November 30, 2023 and are now extended through the second quarter of 2024 (2Q24). The announcement also included an additional voluntary production cut from Russia.



We expect that the extension of the OPEC+ production cuts will tighten global oil supplies in the near-term. The current OPEC+ agreement has two types of production cuts. The first cuts are officially stated production targets, and the second cuts are additional voluntary cuts pledged by some OPEC+ participants. Although our previous forecast had assumed that some of the OPEC+ members would maintain some voluntary cuts through 2Q24 in an effort to balance markets, this new announcement pledges the continuation of cuts for all of the members through the first half of 2024. Because some OPEC+ members are extending these voluntary production cuts and because Russia added new voluntary production cuts, we now expect oil markets to be much tighter in 2Q24 than we previously expected. We forecast global oil inventories will fall by 0.9 million barrels per day (b/d) in 2Q24; last month, we had expected inventories to remain relatively unchanged in 2Q24.

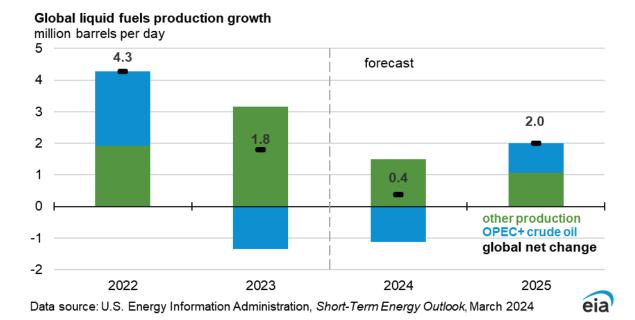
We expect that the tighter oil market balance during 2024 will keep the Brent price above current levels, averaging \$88/b in 2Q24, \$4/b higher than in last month's STEO. We expect it will remain relatively flat for the rest of the year before increasing inventories (when OPEC+ supply cuts are set to expire) start putting slight downward pressure on the price in 2025. We forecast that the Brent crude oil price will

decrease from an average of \$88/b in January 2025 to an average of \$82/b in December 2025, averaging \$87/b in 2024 and \$85/b in 2025.

Our forecast of global oil balances and their impact on our crude oil price forecast remain significantly uncertain. Although no oil production has been lost because of the attacks on commercial shipping traveling through the Red Sea, production could still be disrupted or some oil production in the Middle East could be shut in, which would likely cause oil prices to increase. It also remains to be seen how strictly the latest round of voluntary OPEC+ production cuts are adhered to, which has the potential to add additional oil supplies back on the market and lessen the expected tightness in near-term oil balances and the corresponding upward pressure on oil prices. In addition, we forecast global oil demand to grow by 1.4 million b/d in both 2024 and 2025. Higher or lower demand growth would affect global inventory levels and oil prices.

Global oil production

Following the incorporation of the new OPEC+ voluntary production cuts, we now expect that global liquid fuels production will increase by 0.4 million b/d in 2024, down from growth of 0.6 million b/d in last month's STEO and down from an increase of 1.8 million b/d in 2023. Although OPEC+ production cuts limit overall growth in 2024, production outside of OPEC+ grows by 1.5 million b/d, driven primarily by four countries in the Americas—the United States, Guyana, Brazil, and Canada. This growth counteracts the decline in crude oil product subject to the OPEC+ agreement, which falls by 1.1 million b/d in 2024. Global liquids fuel production increases by 2.0 million b/d in 2025 in our forecast, driven by an increase in OPEC+ crude oil production of 0.9 million b/d as existing OPEC+ production targets expire at the end of 2024, while production that is not subject to the OPEC+ agreement increases by an additional 1.1 million b/d.



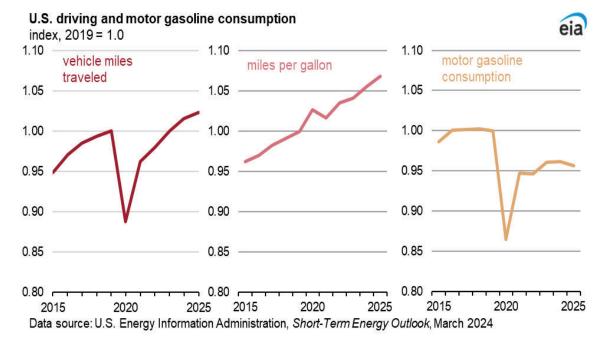
Petroleum Products

Driving Activity

We forecast driving activity—measured by vehicle miles traveled (VMT)—will increase to all-time highs in the United States during 2024 and 2025 as trends in population, employment, and economic growth increase. Our employment forecast is the main contributor to increased driving activity, and we have revised it up, by 1% or by 0.8 million jobs for 2024 compared with last month's STEO, based on forecasts from S&P Global. Despite our forecast of more driving, increased fleetwide vehicle fuel efficiency will keep motor gasoline consumption relatively flat through 2025.

In 2023, U.S. VMT slightly surpassed the pre-pandemic high set in 2019, at 8.9 billion miles per day. Despite the increase in driving, however, continued efficiency gains in recent years mean drivers are, on average, consuming less gasoline.

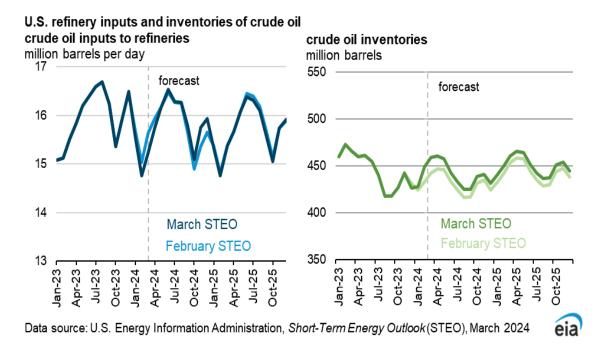
When indexed to 2019, we expect 2% more U.S. VMT in both 2024 and 2025 compared with 2019. We forecast average U.S. miles per gallon will grow even faster, with 5% more in 2024 than in 2019 and 2025 being 6% higher. Our consumption model captures trends in increasing average fuel efficiency, such as those related to increasing corporate average fuel economy standards and the increasing use of electric vehicles. As a result, U.S. motor gasoline consumption will be about 4% less in 2024 and 2025 than in 2019.



U.S. refinery operation and inventories

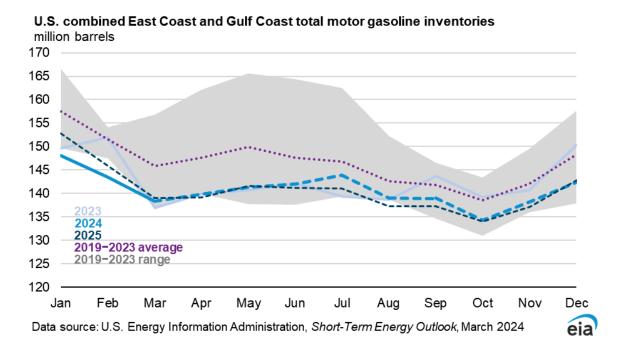
U.S. refinery inputs in late January and February 2024 decreased sharply in response to cold winter weather and planned refinery maintenance on the Gulf Coast, as well as a major unplanned outage in the Midwest. As a result, we estimate refinery utilization is about 2% lower on a monthly average basis in February and March compared with the February STEO, reducing crude oil inputs to refineries by

280,000 barrels per day (b/d) in February and by 420,000 b/d in March. We expect low refinery utilization to continue as the bp Whiting outage lingers alongside normal seasonal maintenance, reducing our forecast for crude oil inputs to refiners from the February STEO by 190,000 b/d in April before mostly returning to our last forecast by May.



Our expectation of less-than-expected crude oil inputs in our forecast increases U.S. commercial crude oil inventory builds. We estimate February crude oil inventories increased by 21 million barrels, compared with the forecast 9-million-barrel increase in our February STEO. We have also increased our expectation for end-of-month crude inventories in March by 16 million barrels compared with the previous STEO. We expect OPEC+ production restraint will contribute to more U.S. crude oil inventory draws later this year, however, bringing our forecast back toward what we expected in the February STEO going into summer 2024.

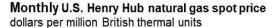
Refinery outages are also reducing motor gasoline production and inventories. We estimate combined East Coast and Gulf Coast inventories ended February about 5% below the five-year (2019–2023) average. The lower inventories in the East Coast and Gulf Coast have an outsized impact on total U.S. gasoline availability and prices because together they make up the largest gasoline producing and consuming region of the United States. We estimate U.S. retail gasoline prices in 2Q24 will average almost \$3.60 per gallon (gal), up nearly 20 cents/gal from the February STEO. Lower inventories are driving the increases in gasoline crack spreads, while retail prices are also higher because of higher crude oil prices.

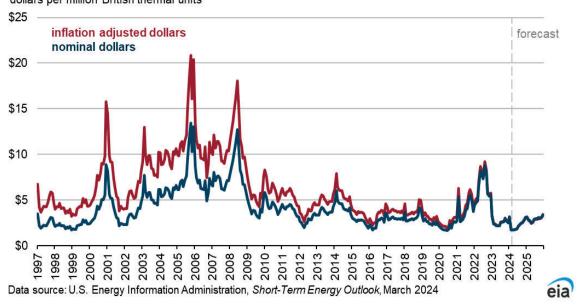


Natural Gas

Natural gas prices and storage

The U.S. benchmark Henry Hub natural gas spot price averaged an inflation-adjusted record-low of \$1.72 per million British thermal units (MMBtu) in February. We forecast prices will stay under \$2.00/MMBtu in the second quarter of 2024 (2Q24) because we expect natural gas inventories will remain high relative to the five-year average as the United States enters the shoulder season when there is typically less U.S. natural gas consumption than at other times of the year. In our March STEO, the annual average Henry Hub price for all of 2024 averages almost \$2.30/MMBtu, 14% lower than in our February STEO.



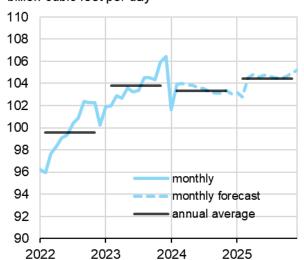


This winter (November–March) has been mild throughout much of the United States, and the country has experienced 8% fewer heating degree days (HDDs) than the 10-year average. February was much milder than expected, with 9% fewer HDDs than forecast in last month's STEO. Because of the mild weather, we estimate combined residential and commercial sector consumption of natural gas this winter will be 3 billion cubic feet per day (Bcf/d), which is 9% less than the previous five-year winter average. Reduced natural gas consumption for space heating and increased U.S. dry natural gas production, which we estimate will be about 3 Bcf/d more this winter compared with last winter, have contributed to above-average inventories. We expect U.S. inventories of natural gas will total 2,270 Bcf at the end of the winter heating season on March 31, 37% above the previous five-year (2019–2023) average for March, contributing to historically low natural gas prices and to our expectation of low prices for the next several months.

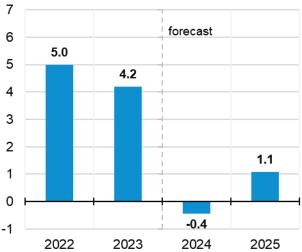
Natural gas production

We estimate that U.S. dry natural gas production increased to almost 104 Bcf/d in February after declining in January to 102 Bcf/d because of weather-related outages. We expect production to continue to remain near that level in March and then decline slightly through the rest of the year, as some producers have announced production curtailments because of low prices. Dry natural gas production falls to 103 Bcf/d by December 2024 in our forecast and then averages 104 Bcf/d in 2025. We do not expect that natural gas production will return to its December 2023 record of 106 Bcf/d during the forecast period.

U.S. dry natural gas production billion cubic feet per day



annual change billion cubic feet per day



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



Although production declines slightly through the rest of 2024 because of low natural gas prices and a relatively stable rig count, production begins to increase in early 2025, mostly driven by natural gas prices that average almost \$3/MMBtu in our forecast next year, as well as increased demand for liquefied natural gas (LNG) exports.

The continued strength in U.S. natural gas production will be key in determining how long the current inventory surplus to the five-year average and low prices persist. Because of low natural gas prices, some producers have announced curtailments in production or reductions in capital expenditures toward natural gas-directed activities in 2024. How soon curtailments affect the market is highly uncertain, and our price forecast is based on relatively high production entering the shoulder season when natural gas demand is lower than other times of the year. However, if there is less production than our forecast, the next few months are warmer than normal, and natural gas consumption for electric power generation increases more than our forecast, then inventories could fall below our forecast and prices could be higher.

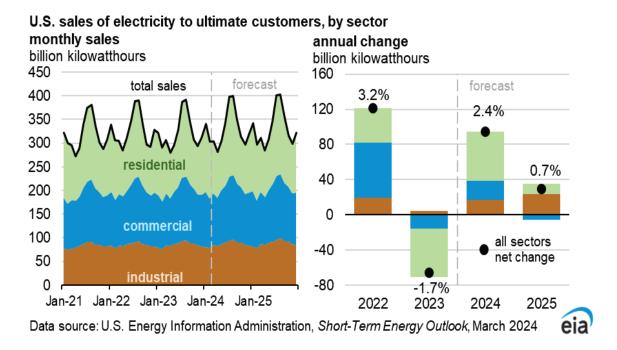
Most natural gas production in the United States comes from three regions: the Permian, the Haynesville, and Appalachia. In 2024, most production growth in our forecast comes from the Permian region in Texas and New Mexico, where most natural gas production is associated natural gas from crude oil production. Production in the Haynesville region is mostly flat in 2024 because of low natural gas prices and a relatively low rig count. Haynesville production increases in 2025 because of its proximity to new LNG export facilities. We expect production in the Appalachian Basin to be mostly flat in 2024 as natural gas pipeline capacity constraints restrain production.

Electricity, Coal, and Renewables

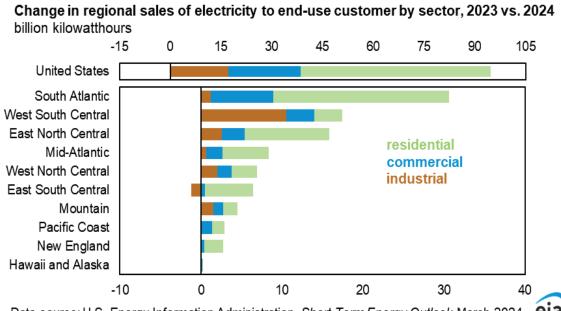
Electricity consumption

Sales of electricity to U.S. end-use customers in our forecast increases by 2% in 2024 and by 1% in 2025 after falling by 2% in 2023. We expect electricity consumption will grow in all major consuming sectors this year, but especially in the residential sector, which we expect will increase by 4%. Much of the forecast year-over-year growth in residential electricity occurs during the summer months of 2024. We expect a warmer summer with 7% more forecast cooling degree days in 2Q24 and 3Q24 than the same quarters in 2023.

The expected hotter summer this year also helps push up U.S. electricity consumption in the commercial sector. Improving macroeconomic conditions this year are likely to boost electricity sales to both the commercial and industrial sectors, by a combined 2%.



We expect the forecast weather trends for summer 2024 and winter 2024–25 will increase residential consumption in all regions of the United States compared with 2023. Sales of electricity to the residential and commercial sectors rise the most this year in the South Atlantic (6% and 2%, respectively). This region has the most electricity customer accounts, but it also has a large proportion of homes using electricity both for space heating and cooling. Industrial electricity consumption rises the most in the West South Central (up 4%), continuing a strong upward trend since the pandemic.



Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, March 2024 **eia**

Electricity generation

New utility-scale solar generating capacity is driving our forecast for the strong increase in solar electricity generation in 2024 and 2025. The electric power sector added 19 gigawatts GW) of solar capacity in 2023 (an increase of 27%), and we expect 36 GW will be added in 2024 and another 35 GW will be added in 2025. With this new capacity, we expect solar will provide 6% of total U.S. electricity generation in 2024 and 7% in 2025, up from a share of 4% in 2023.

The increase in generation from renewable sources, particularly solar, is likely to reduce generation from fossil fuel sources. We expect the share of U.S. generation fueled by natural gas will fall from an average of 42% in 2023 to 41% in 2025, while the U.S. coal generation share falls from 17% last year to 14% by 2025. Low natural gas prices are not likely to lead to significantly more electricity generation fueled by natural gas because significant coal plant retirements over the past few years have left the most efficient coal plants still in operation, which we expect will mostly continue running even if natural gas prices are low. Nearly 20% of U.S. coal-fired generating capacity has been retired since 2020, the last time natural gas prices were as low as they are now, and the remaining coal fleet has been operating at historically low capacity factors.

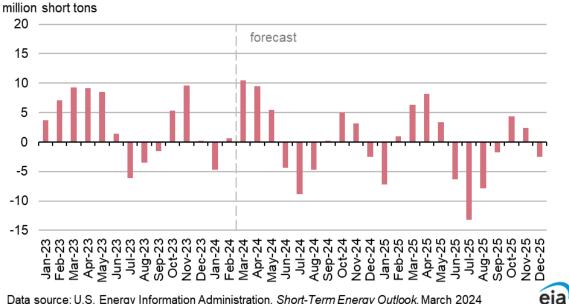
Coal markets

Coal stocks held by the electric power sector increased slightly in February after a 3% decline in January due to cold weather in the middle of the month that caused a brief spike in natural gas prices and increased coal use for power generation. We expect coal stocks to rise from 130 million short tons (MMst) in February to nearly 160 MMst in May. Although we expect natural gas prices to remain low in the summer months, we forecast a decline of 11% in coal stocks from May to September as electric power plants use coal to meet incremental demand for air conditioning during these months. Coal stocks will rise again in the fall, ending the year at almost 150 MMst, the most since mid-2016. We

expect stocks to remain at elevated levels in 2025, reaching about 160 MMst in May 2025 before declining to nearly 130 MMst in December 2025.

We forecast that coal exports will increase 1% in 2024 and a further 5% in 2025, as coal consumption by the U.S. electric power sector declines 7% in 2024 and a further 4% in 2025. As coal stocks remain high and domestic consumption declines, we expect coal production to fall 15% in 2024. We forecast a further 6% decline in coal production in 2025 as 11 GW of coal-generating capacity comes offline.

U.S. monthy change in coal stocks



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

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

U.S. monthy coal demand and supply



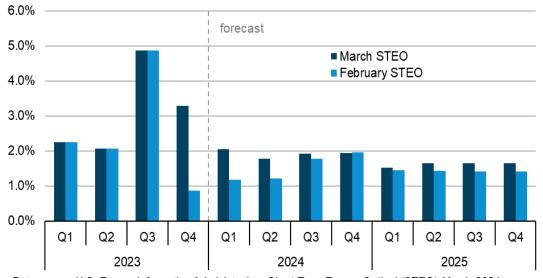
U.S. Energy Information Administration | Short-Term Energy Outlook

Economy, Weather, and CO₂

U.S. macroeconomics

Our forecast assumes real GDP will grow by 2.6% in 2024 and 1.7% in 2025 after upward revisions from last month's forecast of 0.8% in 2024 and 0.1% in 2025. The revisions were primarily driven by the Bureau of Economic Analysis's (BEA) advance estimate of GDP in the fourth quarter of 2023 (4Q23), which came in at 3.3%, higher than the 0.9% in our February STEO. The BEA released the second estimate for 4Q23 GDP growth after the macroeconomic forecast for this month's STEO was compiled, but it was almost unchanged from the advance estimate, coming in at 3.2%. The difference between the advance and second estimate does not materially change our economic outlook and still represents a significant upward revision compared to the February STEO. The strength in 4Q23 is expected to carry over to 2024. The most notable difference is to the composition of expenditures. We now assume consumer spending will make up a larger share of real GDP in 2024 and 2025. Consumer spending in 4Q23 was higher than we assumed last month, and growth in personal income and a strong labor market may support consumer spending growth in 2024. Our U.S. macroeconomic forecasts are based on S&P Global's macroeconomic model. We incorporate STEO energy price forecasts into the model to obtain the final macroeconomic assumptions.

Real GDP annualized quarterly growth rate



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

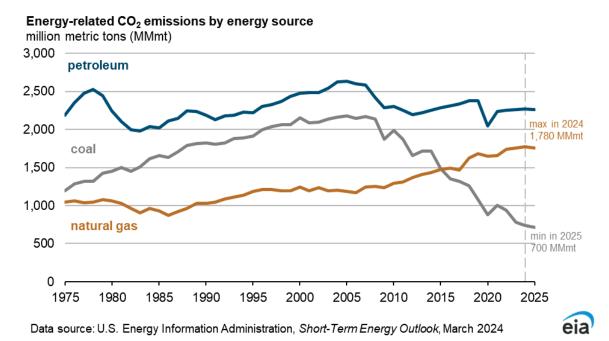


The outlooks for inflation and unemployment in the United States are mostly unchanged from last month. Inflation, measured as the year-over-year growth rate of the Consumer Price Index (CPI), declined from a peak of 9.0% in June 2022 to 3.1% in January 2024. Our forecast assumes that CPI inflation will continue to decline, falling to around 2.0% by 3Q24. Our forecast assumes the unemployment rate will remain flat at around 4.0%, through 4Q25.

Emissions

Total U.S. energy-related carbon dioxide (CO_2) emissions in our forecast remain mostly unchanged in 2024 as decreased CO_2 emissions from coal offset increased CO_2 emissions from natural gas. Forecast coal-related CO_2 emissions decline by 6% as a result of decreasing coal-fired electricity generation. Natural gas-related CO_2 emissions increase by 1% due to increasing natural gas-fired electricity generation and from higher consumption in the residential and commercial sectors. We expect CO_2 emissions to decrease by 1% in 2025 as coal- and natural gas-fired generation declines, offset by growth in renewable generation.

Although total energy-related CO_2 emissions are not expected to change much over the forecast horizon, some notable trends in CO_2 emissions exist by fuel. In particular, we forecast that U.S. CO_2 emissions from natural gas will reach an all-time high in 2024, and emissions from coal in 2024 and 2025 will be the least since EIA's data begin in 1973. These record emissions are consistent with trend of a steady rise in natural gas-related emissions and the steady fall of coal-related emissions, ongoing since 2008. Coal-fired power generation has decreased for several reasons, including as the growth in renewable generation and notable growth in hydraulic fracturing in the early 2000s, which reduced prices for natural gas and increased natural gas-fired generation.



Weather

We expect to end the relatively mild winter season (November 2023–March 2024) with almost 130 fewer HDDs than the previous winter season and more than 260 HDDs fewer than the 10-year winter average. Milder weather in February offset the cold front experienced across the United States in mid-January. Despite this winter's HDDs falling 8% below the 10-year winter average, overall, we expect almost 4,000 HDDs in 2024, 4% more than in 2023. We expect a warmer summer in 2024, with 7% more CDDs than last year during the second and third quarters.

Table 3a. International Petroleum and Other Liquids Production, Consumption, and Inventories

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

Production (million barrels per day) (a) OECD 33.48 33.80 34.55 35.27 34.55 34.51 34.81 35.33 35.56 35.52 35.62 35.99 3 U.S. (50 States) 21.05 21.69 22.27 22.62 21.82 22.25 22.47 22.72 22.74 23.12 23.13 23.29 2	34.28 21.91 5.77	Year 2024 34.80 22.32	2025 35.67
Production (million barrels per day) (a) OECD	34.28 21.91 5.77	34.80	
OECD 33.48 33.80 34.55 35.27 34.55 34.51 34.81 35.33 35.56 35.52 35.62 35.99 3 U.S. (50 States) 21.05 21.69 22.27 22.62 21.82 22.25 22.47 22.72 22.74 23.12 23.13 23.29 2	21.91 5.77		35.67
U.S. (50 States)	21.91 5.77		35.6/
	5.77	22.32	00.07
		1	23.07
		5.91	6.05
	2.11	2.01	1.94
	4.49	4.57	4.61
	67.51	67.36	68.50
	32.18	31.87	32.43
	26.89	26.55	27.15
	5.29	5.32	5.28
	13.72	13.35	13.72
	5.26	5.32	5.35
Other Non-OECD	16.35	16.83	17.00
Total World Production	01.79	102.17	104.17
Non-OPEC Production	69.61	70.30	71.74
Consumption (million barrels per day) (c)			
OECD	45.87	46.04	46.15
U.S. (50 States)	20.25	20.40	20.59
U.S. Territories	0.12	0.11	0.11
Canada	2.45	2.38	2.35
Europe	13.45	13.48	13.46
Japan	3.35	3.27	3.23
Other OECD	6.26	6.39	6.41
Non-OECD	55.13	56.40	57.67
Eurasia	4.60	4.74	4.77
Europe	0.76	0.76	0.77
China	15.94	16.27	16.52
Other Asia	14.09	14.57	15.05
Other Non-OECD	19.75	20.05	20.55
Total World Consumption	01.00	102.43	103.81
Total Crude Oil and Other Liquids Inventory Net Withdrawals (million barrels per day)			
U.S. (50 States)	-0.03	-0.01	-0.03
	0.05	0.08	-0.10
	-0.80	0.19	-0.23
	-0.78	0.27	-0.36
End-of-period Commercial Crude Oil and Other Liquids Inventories (million barrels)			
U.S. Commercial Inventory	1,252	1,228	1,238
OECD Commercial Inventory	2,777	2,722	2,769

⁽a) Supply includes production of crude oil (including lease condensates), natural gas plant liquids, biofuels, other liquids, and refinery processing gains.

Notes: EIA completed modeling and analysis for this report on March 7, 2024.

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

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

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

Forecasts: EIA Short-Term Integrated Forecasting System.

⁽b) Includes lease condensate, natural gas plant liquids, other liquids, and refinery processing gain. Includes other unaccounted-for liquids.

⁽c) Consumption of petroleum by the OECD countries is synonymous with "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.

^{- =} no data available

OECD = Organization for Economic Cooperation and Development: Australia, Austria, 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.

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

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

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

U.S. Energy Information Administration Short-	lerm Ene			arch 202	24	20	24		2025		Year				
	Q1	Q2	23 Q3	Q4	Q1	Q2	24 Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Supply (million barrels per day)	Q.	Q,Z	QJ	Q.7	Q1	QZ	Q3	Q.T	Q.	QZ	43	Q.7	2023	2024	2023
Crude Oil Supply															
Domestic Production (a)	12.63	12.75	13.07	13.28	12.91	13.13	13.25	13.47	13.49	13.66	13.68	13.78	12.93	13.19	13.65
Alaska	0.44	0.43	0.40	0.43	0.43	0.41	0.39	0.41	0.43	0.40	0.38	0.40	0.43	0.41	0.40
Federal Gulf of Mexico (b)		1.77	1.94	1.89	1.85	1.93	1.91	1.95	1.99	2.02	1.96	2.00	1.87	1.91	1.99
Lower 48 States (excl GOM)	10.31	10.55	10.73	10.96	10.63	10.79	10.95	11.11	11.07	11.24	11.34	11.38	10.64	10.87	11.26
Transfers to Crude Oil Supply		0.51	0.70	0.58	0.59	0.55	0.59	0.57	0.56	0.58	0.61	0.59	0.55	0.57	0.59
Crude Oil Net Imports (c)		2.51	2.61	2.29	2.05	2.21	2.04	1.46	1.27	1.55	1.44	1.14	2.42	1.94	1.35
SPR Net Withdrawals		0.26	-0.04	-0.04	-0.10	-0.10	-0.10	0.00	0.00	0.00	0.00	0.00	0.05	-0.08	0.00
Commercial Inventory Net Withdrawals		0.12	0.41	-0.10	-0.36	0.18	0.19	-0.07	-0.32	0.09	0.16	-0.08	0.01	-0.01	-0.04
Crude Oil Adjustment (d)	0.34	0.00	-0.22	-0.09	0.11	0.18	0.15	0.17	0.17	0.15	0.12	0.14	0.01	0.15	0.15
Total Crude Oil Input to Refineries		16.15	16.51	15.93	15.20	16.15	16.12	15.59	15.17	16.04	16.00	15.57	15.96	15.77	15.70
Other Supply															
Refinery Processing Gain	0.97	1.01	1.07	1.05	0.96	1.00	1.03	1.03	0.96	1.02	1.04	1.03	1.03	1.00	1.01
Natural Gas Plant Liquids Production	6.01	6.42	6.58	6.70	6.42	6.56	6.62	6.63	6.68	6.78	6.76	6.79	6.43	6.56	6.75
Renewables and Oxygenate Production (e)	1.24	1.29	1.31	1.35	1.32	1.34	1.35	1.38	1.40	1.45	1.45	1.48	1.30	1.35	1.44
Fuel Ethanol Production	1.00	1.00	1.02	1.05	1.02	1.02	1.02	1.03	1.03	1.03	1.02	1.04	1.02	1.02	1.03
Petroleum Products Adjustment (f)		0.22	0.23	0.23	0.21	0.21	0.21	0.22	0.20	0.21	0.21	0.22	0.22	0.21	0.21
Petroleum Products Transfers to Crude Oil Supply	-0.39	-0.51	-0.70	-0.58	-0.59	-0.55	-0.59	-0.57	-0.56	-0.58	-0.61	-0.59	-0.55	-0.57	-0.59
Product Net Imports (c)	-3.91	-3.71	-4.03	-4.56	-4.29	-3.66	-3.81	-4.20	-3.89	-3.79	-3.86	-4.24	-4.06	-3.99	-3.94
Hydrocarbon Gas Liquids	-2.47	-2.39	-2.42	-2.58	-2.62	-2.60	-2.54	-2.51	-2.64	-2.74	-2.63	-2.58	-2.46	-2.57	-2.65
Unfinished Oils	0.28	0.27	0.22	0.18	0.38	0.43	0.45	0.36	0.33	0.43	0.47	0.38	0.24	0.40	0.40
Other HC/Oxygenates	-0.05	-0.07	-0.04	-0.05	-0.06	-0.06	-0.05	-0.05	-0.09	-0.08	-0.07	-0.08	-0.05	-0.05	-0.08
Motor Gasoline Blend Comp	0.45	0.67	0.57	0.41	0.46	0.66	0.64	0.42	0.51	0.70	0.59	0.36	0.52	0.54	0.54
Finished Motor Gasoline		-0.58	-0.67	-0.81	-0.77	-0.51	-0.57	-0.75	-0.68	-0.53	-0.56	-0.73	-0.70	-0.65	-0.63
Jet Fuel		0.01	-0.05	-0.09	-0.11	0.05	0.01	-0.05	0.01	0.09	0.08	0.03	-0.05	-0.02	0.05
Distillate Fuel Oil	-0.76	-0.97	-1.01	-1.01	-0.91	-0.86	-1.00	-0.90	-0.62	-0.89	-0.92	-0.85	-0.94	-0.92	-0.82
Residual Fuel Oil	0.01	-0.04	-0.03	0.00	-0.06	-0.14	-0.12	-0.03	-0.06	-0.05	-0.11	-0.02	-0.01	-0.09	-0.06
Other Oils (g)	-0.58	-0.61	-0.59	-0.61	-0.62	-0.63	-0.64	-0.69	-0.65	-0.71	-0.70	-0.76	-0.60	-0.64	-0.71
Product Inventory Net Withdrawals	0.30	-0.49	-0.61	0.44	0.66	-0.50	-0.30	0.44	0.39	-0.46	-0.26	0.37	-0.09	0.08	0.01
Total Supply	19.67	20.38	20.37	20.56	19.89	20.55	20.64	20.52	20.36	20.67	20.72	20.62	20.25	20.40	20.59
Consumption (million barrels per day)															
Hydrocarbon Gas Liquids	3.40	3.36	3.25	3.81	3.79	3.38	3.43	3.81	3.90	3.47	3.50	3.88	3.46	3.60	3.69
Other HC/Oxygenates	0.22	0.28	0.28	0.28	0.28	0.30	0.30	0.33	0.34	0.36	0.37	0.40	0.27	0.30	0.37
Unfinished Oils	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Motor Gasoline	8.67	9.13	9.05	8.93	8.68	9.19	9.14	8.80	8.65	9.14	9.09	8.75	8.94	8.95	8.91
Fuel Ethanol blended into Motor Gasoline	0.90	0.94	0.94	0.94	0.90	0.95	0.95	0.94	0.90	0.96	0.95	0.94	0.93	0.94	0.94
Jet Fuel	1.55	1.67	1.72	1.66	1.55	1.71	1.72	1.67	1.62	1.75	1.77	1.73	1.65	1.66	1.72
Distillate Fuel Oil	4.01	3.93	3.90	3.90	3.83	4.01	3.93	4.02	4.11	3.98	3.92	4.02	3.93	3.95	4.01
Residual Fuel Oil	0.29	0.22	0.27	0.31	0.25	0.22	0.21	0.24	0.23	0.23	0.21	0.25	0.27	0.23	0.23
Other Oils (g)	1.53	1.79	1.89	1.67	1.50	1.76	1.90	1.64	1.51	1.73	1.86	1.60	1.72	1.70	1.67
Total Consumption	19.66	20.38	20.37	20.56	19.89	20.55	20.64	20.52	20.36	20.67	20.72	20.62	20.25	20.40	20.59
Total Petroleum and Other Liquids Net Imports	-1.64	-1.20	-1.42	-2.28	-2.25	-1.46	-1.77	-2.74	-2.62	-2.24	-2.42	-3.10	-1.64	-2.05	-2.60
End-of-period Inventories (million barrels)															
Commercial Inventory															
Crude Oil (excluding SPR)	465.4	454.7	417.5	426.4	458.7	442.2	424.9	431.1	460.2	451.6	437.1	444.4	426.4	431.1	444.4
Hydrocarbon Gas Liquids	174.3	225.4	279.1	223.3	174.0	222.8	262.9	218.8	180.7	228.6	266.5	225.3	223.3	218.8	225.3
Unfinished Oils	88.6	87.0	88.3	84.1	88.8	87.4	86.7	79.6	88.1	86.5	86.5	80.7	84.1	79.6	80.7
Other HC/Oxygenates		30.1	30.3	33.2	35.8	34.6	34.3	34.6	36.6	35.4	35.1	35.4	33.2	34.6	35.4
Total Motor Gasoline	225.3	223.2	227.6	241.3	229.9	226.6	221.8	233.1	229.7	227.1	218.9	231.1	241.3	233.1	231.1
Finished Motor Gasoline		17.6	15.3	18.1	13.8	18.4	17.6	19.3	16.0	18.2	17.7	20.1	18.1	19.3	20.1
Motor Gasoline Blend Comp.		205.6	212.3	223.2	216.1	208.1	204.3	213.8	213.7	208.9	201.3	211.0	223.2	213.8	211.0
Jet Fuel	37.7	42.7	43.5	39.8	38.3	38.3	40.7	37.8	34.6	35.9	37.2	33.4	39.8	37.8	33.4
Distillate Fuel Oil	112.3	112.6	119.2	130.7	111.8	116.6	118.6	119.7	108.2	108.8	113.2	116.5	130.7	119.7	116.5
Residual Fuel Oil	29.6	30.4	27.5	24.1	30.3	29.6	27.3	26.6	28.0	27.7	25.7	25.2	24.1	26.6	25.2
Other Oils (g)	63.3	58.3	50.5	49.3	57.0	55.1	46.1	47.8	57.1	55.2	46.1	47.7	49.3	47.8	47.7
Total Commercial Inventory		1264.4	1283.4	1252.2	1224.6	1253.2	1263.4	1229.1	1223.4	1256.7	1266.3	1239.6	1252.2	1229.1	1239.6
Crude Oil in SPR	371.2	347.2	351.3	354.7	364.0	373.2	382.2	382.2	382.2	382.2	382.2	382.2	354.7	382.2	382.2

⁽a) Includes lease condensate.

SPR: Strategic Petroleum Reserve

HC: Hydrocarbons

Notes: EIA completed modeling and analysis for this report on March 7, 2024.

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

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 Petroleum Status Report, DOE/EIA-0208.

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

Forecasts: EIA Short-Term Integrated Forecasting System.

⁽b) Crude oil production from U.S. Federal leases in the Gulf of Mexico (GOM).

⁽c) Net imports equal gross imports minus gross exports.

⁽d) Crude oil adjustment equals the sum of disposition items (e.g. refinery inputs) minus the sum of supply items (e.g. production).

⁽e) 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 pet fuel, renewable heating oil, renewable naphtha and gasoline, and other renewable fuels. For December 2020 and prior, renewable fuels includes only biodiesel.

⁽f) Petroleum products adjustment includes hydrogen/oxygenates/renewables/other hydrocarbons, motor gasoline blending components, and finished motor gasoline.

⁽g) "Other Oils" includes aviation gasoline blend components, finished aviation gasoline, kerosene, petrochemical feedstocks, special naphthas, lubricants, waxes, petroleum coke, asphalt and road oil, still gas, and miscellaneous products.

^{- =} no data available

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

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0.5. Effergy information Admir	iioti atioi	20	23	inorgy c	Juliook)24			20	25			Year	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Supply (billion cubic feet per day)															
Total Marketed Production	111.18	112.50	113.64	115.19	112.52	113.14	112.63	112.51	112.87	114.17	113.99	114.42	113.14	112.70	113.87
Alaska	1.08	1.01	0.91	1.04	1.04	0.96	0.88	1.00	1.02	0.94	0.87	0.99	1.01	0.97	0.96
Federal GOM (a)	2.13	1.89	2.02	1.96	1.94	2.04	2.02	2.07	2.12	2.13	2.04	2.05	2.00	2.02	2.09
Lower 48 States (excl GOM)	107.97	109.60	110.70	112.19	109.53	110.15	109.73	109.44	109.73	111.09	111.08	111.37	110.13	109.71	110.82
Total Dry Gas Production	102.26	103.16	104.12	105.57	103.17	103.76	103.29	103.18	103.51	104.71	104.54	104.93	103.79	103.35	104.43
LNG Gross Imports	0.09	0.02	0.02	0.03	0.10	0.04	0.04	0.06	0.10	0.04	0.04	0.06	0.04	0.06	0.06
LNG Gross Exports	11.45	11.76	11.40	12.97	12.70	11.92	11.73	13.03	13.07	13.60	14.82	16.20	11.90	12.34	14.43
Pipeline Gross Imports	8.45	7.32	7.94	8.23	8.38	6.90	7.22	7.47	8.29	6.98	7.24	7.48	7.98	7.49	7.49
Pipeline Gross Exports	8.93	8.75	9.19	8.94	9.31	9.19	9.44	9.34	9.53	9.53	9.87	9.65	8.95	9.32	9.64
Supplemental Gaseous Fuels	0.22	0.17	0.16	0.15	0.17	0.17	0.17	0.17	0.17	0.18	0.18	0.18	0.17	0.17	0.18
Net Inventory Withdrawals	11.96	-11.71	-6.38	0.29	13.06	-11.09	-6.02	3.52	14.82	-11.93	-6.01	4.18	-1.51	-0.14	0.22
Total Supply	102.60	78.45	85.27	92.36	102.88	78.67	83.52	92.04	104.29	76.83	81.30	90.98	89.63	89.27	88.30
Balancing Item (b)	0.38	-0.43	-1.40	-0.69	0.98	-0.43	0.69	0.40	0.10	0.52	1.52	1.47	-0.54	0.41	0.91
Total Primary Supply	102.98	78.02	83.87	91.68	103.85	78.24	84.22	92.44	104.39	77.36	82.82	92.45	89.09	89.68	89.21
Consumption (billion cubic feet per	day)														
Residential	23.50	7.29	3.57	14.95	22.57	7.16	3.84	16.14	24.17	7.26	3.83	16.09	12.28	12.41	12.79
Commercial	14.51	6.43	4.72	10.70	13.99	6.66	5.09	10.96	14.83	6.71	5.07	10.90	9.07	9.17	9.36
Industrial	24.84	22.40	21.98	24.35	25.36	21.93	21.62	23.85	24.80	21.84	21.64	23.91	23.39	23.19	23.04
Electric Power (c)	30.77	33.41	44.84	32.56	32.46	33.98	44.96	32.45	31.08	33.03	43.55	32.42	35.43	35.98	35.05
Lease and Plant Fuel	5.31	5.37	5.43	5.50	5.37	5.40	5.38	5.37	5.39	5.45	5.44	5.46	5.40	5.38	5.44
Pipeline and Distribution Use	3.87	2.93	3.15	3.44	3.90	2.90	3.13	3.46	3.92	2.87	3.09	3.48	3.34	3.35	3.34
Vehicle Use	0.18	0.18	0.18	0.18	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.18	0.20	0.20
Total Consumption	102.98	78.02	83.87	91.68	103.85	78.24	84.22	92.44	104.39	77.36	82.82	92.45	89.09	89.68	89.21
End-of-period Inventories (billion cu	ıbic feet)														
Working Gas Inventory	1,850	2,902	3,490	3,457	2,269	3,278	3,832	3,509	2,175	3,261	3,814	3,430	3,457	3,509	3,430
East Region (d)	334	646	853	787	386	676	868	782	404	715	861	765	787	782	765
Midwest Region (d)	417	701	993	950	513	781	1,046	941	474	774	1,063	925	950	941	925
South Central Region (d)	919	1,138	1,092	1,183	968	1,281	1,295	1,243	929	1,244	1,281	1,219	1,183	1,243	1,219
Mountain Region (d)	79	171	239	228	153	191	249	212	137	194	243	207	228	212	207
Pacific Region (d)	74	216	278	280	224	321	343	302	208	307	334	285	280	302	285
Alaska	27	30	35	30	25	28	33	29	24	27	32	28	30	29	28

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

LNG: liquefied natural gas.

Notes: EIA completed modeling and analysis for this report on March 7, 2024.

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

Historical data: Latest data available from Energy Information Administration databases supporting the following reports: Natural Gas Monthly, DOE/EIA-0130; and Electric Power Monthly, Minor discrepancies with published historical data are due to independent rounding.

Forecasts: EIA Short-Term Integrated Forecasting System.

⁽b) The balancing item represents the difference between the sum of the components of natural gas supply and the sum of components of natural gas demand.

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

⁽d) 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

	1. Selected indicators of the Indian economy									
	Economic indicators	Unit/ Base	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24		
1	Population (basis RGI projections)	Billion	1.323	1.337	1.351	1.365	1.377	1.388		
2	GDP at constant (2011-12 Prices)	Growth %	6.5	4.0	-6.6	9.1	7.2	7.6		
	dbr at constant (2011-12 rnces)		2nd RE	1st RE	1st RE	1st RE	PE	(E)		
	A series de costi a se	MMT	285.2	297.5	310.7	315.7	323.6	_		
3	Agricultural Production					4th AE	2nd AE			
	(Food grains)	Growth %	0.1	4.3	4.5	1.6	2.5	-		
1	Gross Fiscal Deficit	%	3.4	4.6	9.5	6.7	6.4	5.8		
4	(as percent of GDP)				RE	RE	RE	RE		

	Economic indicators	Unit/ Base	2021-22	2022-23	Febr	uary	April-February	
					2022-23	2023-24 (P)	2022-23	2023-24 (P)
5	Index of Industrial Production (Base: 2011-12)	Growth %	11.4	5.5#	6.5*	-0.3* QE	-0.2#	4.6#
6	Imports^	\$ Billion	611.9	714.2	52.8	54.4	601.5	561.1
7	Exports^	\$ Billion	422.0	451.0	35.8	36.9	372.1	353.9
8	Trade Balance	\$ Billion	-189.9	-263.2	-17.0	-17.5	-229.4	-207.2
9	Foreign Exchange Reserves [@]	\$ Billion	617.6	578.4	560.9	619.1	-	-

Population projection by RGI is taken as on 1st July for the year. IIP is for the month of *Jan'24 and #April-Jan'24; @ 2021-22 - as on March 25, 2022, 2022-23 as on March 31, 2023, February 2023 as on February 24, 2023 and February, 2024 as on February 23, 2024; ^Imports & Exports are for Merchandise for the month of January 2024 and April 23- January 2024; E: Estimates; PE: Provisional Estimates; AE-Advanced Estimates: RE-Revised Estimates: QE-Quick Estimates.

Source: Registrar General India, Ministry of Commerce & Industry, Ministry of Statistics and Programme Implementation, Ministry of

Source: Registrar General India, Ministry of Commerce & Industry, Ministry of Statistics and Programme Implementation, Ministry of Agriculture & Farmer's Welfare, Ministry of Finance, Reserve Bank of India

	2. Crude oil, LNG and petroleum products at a glance									
	Details	Unit/ Base	2021-22	2022-23	Febr	uary	April-Fe	ebruary		
			(P)	(P)	2022-23 (P)	2023-24 (P)	2022-23 (P)	2023-24 (P)		
1	Crude oil production in India [#]	MMT	29.7	29.2	2.2	2.3	26.7	26.9		
2	Consumption of petroleum products*	MMT	201.7	223.0	18.7	19.7	201.8	212.2		
3	Production of petroleum products	MMT	254.3	266.5	21.9	22.4	242.0	251.2		
4	Gross natural gas production	MMSCM	34,024	34,450	2,651	2,947	31,494	33,299		
5	Natural gas consumption	MMSCM	64,159	59,969	4,430	5,332	54,530	60,578		
6	Imports & exports:									
	Crude oil imports	MMT	212.4	232.7	19.3	18.0	211.8	212.6		
	crude on imports	\$ Billion	120.7	157.5	10.4	10.2	146.6	120.8		
	Petroleum products (POL)	MMT	39.0	44.6	3.7	4.0	40.2	43.8		
	imports*	\$ Billion	23.7	26.9	2.2	2.1	24.7	21.2		
	Gross petroleum imports	MMT	251.4	277.3	23.0	22.1	252.0	256.4		
	(Crude + POL)	\$ Billion	144.3	184.4	12.6	12.2	171.4	142.1		
	Petroleum products (POL)	MMT	62.8	61.0	5.1	5.8	55.0	57.3		
	export	\$ Billion	44.4	57.3	4.1	4.1	52.8	43.3		
	LNG imports*	MMSCM	31,028	26,304	1,834	2,445	23,755	27,933		
	LNG IIIIports	\$ Billion	13.5	17.1	1.1	1.1	15.9	12.0		
	Net oil & gas imports	\$ Billion	113.4	144.2	9.6	9.2	134.4	110.8		
7	Petroleum imports as percentage of India's gross imports (in value terms)	%	23.6	25.8	23.8	22.5	28.5	25.3		
8	Petroleum exports as percentage of India's gross exports (in value terms)	%	10.5	12.7	11.4	11.1	14.2	12.2		
9	Import dependency of crude oil (on POL consumption basis)	%	85.5	87.4	89.3	88.8	87.2	87.7		

#Includes condensate; *Private direct imports are prorated for the period Dec'23 to Feb'24 for POL. LNG Imports figure from DGCIS are prorated for Jan'24 to Feb'24.Total may not tally due to rounding off.

3. Indig	3. Indigenous crude oil production (Million Metric Tonnes)									
Details	2021-22	2022-23		February		April-February				
		(P)	2022-23 (P)	2023-24 Target*	2023-24 (P)	2022-23 (P)	2023-24 Target*	2023-24 (P)		
ONGC	18.5	18.4	1.4	1.5	1.4	16.9	17.6	16.6		
Oil India Limited (OIL)	3.0	3.2	0.2	0.3	0.3	2.9	3.1	3.1		
Private / Joint Ventures (JVs)	7.0	6.2	0.4	0.6	0.4	5.7	6.8	5.2		
Total Crude Oil	28.4	27.8	2.1	2.4	2.1	25.5	27.5	24.9		
ONGC condensate	0.9	1.0	0.1	0.0	0.1	1.0	0.0	1.0		
PSC condensate	0.3	0.31	0.03	0.0	0.1	0.3	0.0	1.0		
Total condensate	1.2	1.4	0.11	0.0	0.2	1.2	0.0	2.0		
Total (Crude + Condensate) (MMT)	29.7	29.2	2.2	2.4	2.3	26.7	27.5	26.9		
Total (Crude + Condensate) (Million Bbl/Day)	0.60	0.59	0.55	0.60	0.59	0.58	0.60	0.59		

^{*}Provisional targets inclusive of condensate.

4. Domestic and overseas oil & gas production (by Indian Companies)								
Details	2021-22	2022-23	Febr	uary	April-February			
		(P)	2022-23 (P)	2023-24 (P)	2022-23 (P)	2023-24 (P)		
Total domestic production (MMTOE)	63.7	63.6	4.8	5.3	58.2	60.2		
Overseas production (MMTOE)	21.8	19.5	1.6	1.6	17.8	18.2		

Source: ONGC Videsh, GAIL, OIL , IOCL, HPCL & BPRL

	5. High Sulphur (HS) & Low Sulphur (LS) crude oil processing (MMT)								
Details		2021-22	21-22 2022-23 February		uary	April-February			
			(P)	2022-23 (P)	2023-24 (P)	2022-23 (P)	2023-24 (P)		
1	High Sulphur crude	185.0	197.9	16.7	16.7	179.9	186.4		
2	Low Sulphur crude	56.7	57.4	4.2	4.2	52.3	51.8		
Total c	rude processed (MMT)	241.7	255.2	20.8	20.9	232.2	238.2		
Total c	rude processed (Million Bbl/Day)	4.85	5.13	5.27	5.28	5.08	5.21		
Percen	tage share of HS crude in total crude oil processing	76.6%	77.5%	79.9%	79.8%	77.5%	78.3%		

6. Quantity and value of crude oil imports									
Year	Quantity (MMT)	\$ Million	Rs. Crore						
2021-22	212.4	1,20,675	9,01,262						
2022-23	232.7	1,57,531	12,60,372						
April-Feb 2023-24(P)	212.6	1,20,848	10,00,765						

	7. Self-sufficiency in petroleum products (Million Metric Tonnes)											
	Particulars	2021-22	2022-23	Febr	uary	April-Fe	ebruary					
	Faiticulais		(P)	2022-23 (P)	2023-24 (P)	2022-23 (P)	2023-24 (P)					
1	Indigenous crude oil processing	27.0	26.4	1.9	2.1	24.3	24.5					
2	Products from indigenous crude (93.3% of crude oil processed)	25.2	24.7	1.8	1.9	22.6	22.9					
3	Products from fractionators (Including LPG and Gas)	4.1	3.5	0.2	0.3	3.2	3.2					
4	Total production from indigenous crude & condensate (2 + 3)	29.3	28.2	2.0	2.2	25.8	26.1					
5	Total domestic consumption	201.7	223.0	18.7	19.7	201.8	212.2					
% Self	-sufficiency (4 / 5)	14.5%	12.6%	10.7%	11.2%	12.8%	12.3%					

	8. Ref	fineries: In	stalled ca	pacity an	d crude c	oil proces	sing (MM	TPA / MI	MT)	
Sl. no.	Refinery	Installed			Cru	ide oil prod	essing (MN	/IT)		
		capacity	2021-22	2022-23		February		А	pril-Februa	ry
		(01.04.2023)		(P)	2022-23	2023-24	2023-24	2022-23	2023-24	2023-24
		MMTPA			(P)	(Target)	(P)	(P)	(Target)	(P)
1	Barauni (1964)	6.0	5.6	6.8	0.5	0.5	0.5	6.2	6.1	6.0
2	Koyali (1965)	13.7	13.5	15.6	1.2	1.2	1.2	14.2	13.1	13.8
3	Haldia (1975)	8.0	7.3	8.5	0.7	0.7	0.7	7.8	6.9	7.3
4	Mathura (1982)	8.0	9.1	9.6	0.7	0.7	0.8	8.7	8.3	8.3
5	Panipat (1998)	15.0	14.8	13.8	1.2	1.3	0.7	12.5	13.3	13.2
6	Guwahati (1962)	1.0	0.7	1.1	0.09	0.09	0.1	1.0	0.9	0.9
7	Digboi (1901)	0.65	0.7	0.7	0.06	0.06	0.06	0.7	0.6	0.6
8	Bongaigaon(1979)	2.70	2.6	2.8	0.2	0.2	0.2	2.5	2.5	2.8
9	Paradip (2016)	15.0	13.2	13.6	1.2	1.2	1.3	12.2	14.0	13.8
	IOCL-TOTAL	70.1	67.7	72.4	5.9	6.0	5.6	65.7	65.8	66.7
10	Manali (1969)	10.5	9.0	11.3	0.9	0.9	1.0	10.3	9.3	10.6
11	CBR (1993)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	CPCL-TOTAL	10.5	9.0	11.3	0.9	0.9	1.0	10.3	9.3	10.6
12	Mumbai (1955)	12.0	14.4	14.5	1.3	1.2	1.3	13.2	13.2	13.6
13	Kochi (1966)	15.5	15.4	16.0	1.4	1.3	1.2	14.5	14.4	15.8
14	Bina (2011)	7.8	7.4	7.8	0.7	0.6	0.7	7.1	6.3	6.5
	BPCL-TOTAL	35.3	37.2	38.4	3.4	3.1	3.2	34.8	34.0	35.8
15	Numaligarh (1999)	3.0	2.6	3.1	0.2	0.3	0.3	2.9	2.5	2.2

Sl. no.	Refinery	Installed			Cruc	le oil proce	essing (MM	IT)		
		capacity	2021-22	2022-23		February		Ap	oril-Februa	ry
		(01.04.2023)			2022-23	2023-24	2023-24	2022-23	2023-24	2023-24
		MMTPA			(P)	(Target)	(P)	(P)	(Target)	(P)
16	Tatipaka (2001)	0.07	0.08	0.07	0.01	0.005	0.006	0.07	0.06	0.06
17	MRPL-Mangalore (1996)	15.0	14.9	17.1	1.4	1.3	1.5	15.6	14.4	15.0
	ONGC-TOTAL	15.1	14.9	17.2	1.4	1.4	1.5	15.7	14.5	15.1
18	Mumbai (1954)	9.5	5.6	9.8	0.8	0.8	0.7	8.9	8.2	9.1
19	Visakh (1957)	11.0	8.4	9.3	0.7	1.0	1.3	8.4	10.8	11.4
20	HMEL-Bathinda (2012)	11.3	13.0	12.7	1.0	0.9	0.9	11.6	10.4	11.5
	HPCL- TOTAL	31.8	27.0	31.8	2.6	2.7	2.8	29.0	29.5	32.0
21	RIL-Jamnagar (DTA) (1999)	33.0	34.8	34.4	2.6	2.6	2.7	31.6	31.6	31.4
22	RIL-Jamnagar (SEZ) (2008)	35.2	28.3	27.9	2.3	2.3	2.2	25.3	25.3	25.7
23	NEL-Vadinar (2006)	20.0	20.2	18.7	1.6	1.6	1.6	17.0	17.0	18.6
All India	(MMT)	253.9	241.7	241.7 255.2 20.8 20.7 20.9				232.2	229.4	238.2
All India	(Million Bbl/Day)	5.02	4.85 5.13 5.27 5.23 5.28 5.08						5.02	5.21

Note: Provisional Targets; Some sub-totals/ totals may not add up due to rounding off at individual levels. The Inputs to Refinery includes both Crude Oil and Other Inputs (OI), however Other Inputs (OI) do not form part of the above data.

	9. Major crude oil and product pipeline network (as on 01.03.2024)												
Det	Details ONGC OIL Cairn HMEL IOCL BPCL HPCL Others* Total												
Crude Oil	Length (KM)	1,284	1,193	688	1,017	5,822	937			10,941			
	Cap (MMTPA)	60.6	9.0	10.7	11.3	53.8	7.8			153.1			
Products	Length (KM)		654			12,581	2,600	5,123	2,399	23,357			
	Cap (MMTPA)		1.7			70.6	22.6	35.2	10.2	140.3			

^{*}Others include GAIL and Petronet India. HPCL and BPCL lubes pipeline included in products pipeline data

	11. Pro	duction	and cor	sumption	on of pe	troleun	n produ	cts (Mil	lion Me	tric Ton	nes)	
Durcheste	202	1-22	2022-	·23 (P)	Feb- 20	023 (P)	Feb-2	024 (P)	Apr-Feb	2023 (P)	Apr-Feb	2024 (P)
Products	Prod	Cons	Prod	Cons	Prod	Cons	Prod	Cons	Prod	Cons	Prod	Cons
LPG	12.2	28.3	12.8	28.5	1.0	2.4	1.0	2.6	11.7	26.1	11.6	27.0
MS	40.2	30.8	42.8	35.0	3.5	2.8	3.7	3.0	38.8	31.9	41.0	33.9
NAPHTHA	20.0	13.2	17.0	12.2	1.4	1.1	1.6	1.2	15.5	11.0	16.6	12.7
ATF	10.3	5.0	15.0	7.4	1.3	0.6	1.4	0.7	13.6	6.7	15.6	7.5
SKO	1.9	1.5	0.9	0.5	0.1	0.0	0.0	0.0	0.8	0.5	0.9	0.4
HSD	107.2	76.7	113.8	85.9	9.3	7.0	9.5	7.4	103.5	78.1	105.8	81.6
LDO	0.8	1.0	0.6	0.7	0.05	0.1	0.03	0.1	0.6	0.6	0.6	0.7
LUBES	1.2	4.5	1.3	3.7	0.1	0.3	0.1	0.3	1.2	3.3	1.2	3.6
FO/LSHS	8.9	6.3	10.4	7.0	0.8	0.6	0.8	0.5	9.6	6.4	9.6	6.0
BITUMEN	5.1	7.8	4.9	8.0	0.4	0.9	0.5	0.9	4.3	7.0	4.6	7.9
PET COKE	15.5	14.3	15.4	18.3	1.2	1.6	1.2	1.5	14.0	16.4	13.7	17.5
OTHERS	30.9	12.3	31.5	15.8	2.5	1.4	2.5	1.4	28.5	13.9	30.0	13.4
ALL INDIA	254.3	201.7	266.5	223.0	21.9	18.7	22.4	19.7	242.0	201.8	251.2	212.2
Growth (%)	-3.1%	-5.4%	4.8%	10.6%	3.3%	-2.1%	2.6%	5.7%	5.2%	24.6%	3.8%	5.2%

Note: Prod - Production; Cons - Consumption

		15. LPG cons	sumption (The	ousand Metr	ic Tonne				
LPG category	2021-22	2022-23		February		April-February			
			2022-23	2023-24 (P)	Growth (%)	2022-23	2023-24 (P)	Growth (%)	
1. PSU Sales :									
LPG-Packed Domestic	25,501.6	25,381.5	2,083.9	2,292.0	10.0%	23,200.3	23,862.3	2.9%	
LPG-Packed Non-Domestic	2,238.8	2,606.0	253.0	234.7	-7.2%	2,413.5	2,544.1	5.4%	
LPG-Bulk	390.9	408.9	46.1	60.4	31.1%	384.1	548.9	42.9%	
Auto LPG	122.0	106.7	8.1	6.5	-20.3%	98.9	81.6	-17.5%	
Sub-Total (PSU Sales)	28,253.3	28,503.1	2,391.2	2,593.6	8.5%	26,096.8	27,036.9	3.6%	
2. Direct Private Imports*	0.1	0.1	0.03	0.01	-74.4%	0.08	0.06	-21.1%	
Total (1+2)	28,253.4	28,503.2	2,391.3	2,593.6	8.5%	26,096.8	27,037.0	3.6%	

*Dec-23-Feb'24 DGCIS data is prorated

	16. LPG marketing at a glance													
Particulars	Unit	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	1.03.24
(As on 1st of April)														(P)
LPG Active Domestic	(Lakh)				1486	1663	1988	2243	2654	2787	2895	3053	3140	3231
Customers	Growth					11.9%	19.6%	12.8%	18.3%	5.0%	3.9%	5.5%	2.9%	3.0%
LPG Coverage (Estimated)	(Percent)				56.2	61.9	72.8	80.9	94.3	97.5	99.8	-	-	-
LPG Coverage (Estimateu)	Growth					10.1%	17.6%	11.1%	16.5%	3.4%	2.3%	-	-	-
PMUY Beneficiaries	(Lakh)						200.3	356	719	802	800	899.0	958.6	1026.6
PIVIOT Belleficiaries	Growth							77.7%	101.9%	11.5%	-0.2%	12.2%	6.6%	7.1%
LPG Distributors	(No.)	11489	12610	13896	15930	17916	18786	20146	23737	24670	25083	25269	25386	25460
LPG DISTIBUTORS	Growth	9.0%	9.8%	10.2%	14.6%	12.5%	4.9%	7.2%	17.8%	3.9%	1.7%	0.7%	0.5%	0.4%
Auto LPG Dispensing	(No.)	652	667	678	681	676	675	672	661	657	651	601	526	468
Stations	Growth	7.9%	2.3%	1.6%	0.4%	-0.7%	-0.1%	-0.4%	-1.6%	-0.6%	-0.9%	-8.5%	-12.5%	-11.0%
Bottling Plants	(No.)	184	185	187	187	188	189	190	192	196	200	202	208	210
Source: DCLL OMG: (IOCL DI	Growth	0.5%	0.5%	1.1%	0.0%	0.5%	0.5%	0.5%	1.1%	2.1%	2.0%	1.0%	4.5%	1.9%

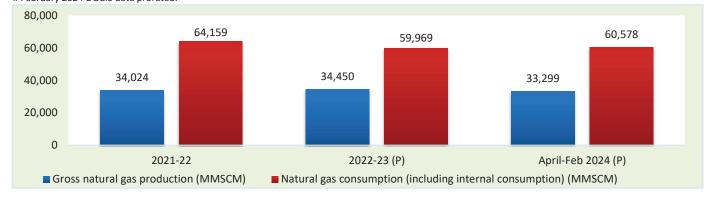
Source: PSU OMCs (IOCL, BPCL and HPCL)

^{1.} Growth rates as on 01.03.2024 are with respect to figs as on 01.03.2023. Growth rates as on 1 April of any year are with respect to figs as on 1 April of previous year.

^{2.} The LPG coverage is calculated by PSU OMCs based upon the active LPG domestic connections and the estimated number of households. The number of households has been projected by PSU OMCs based on 2011 census data. Factors like increasing nuclearization of families, migration of individuals/ families due to urbanization and reduction in average size of households etc. impact the growth of number of households. Due to these factors, the estimated no. of households through projection of 2011 census data may slightly differ from the actual no. of households in a State/UT. Further, this methodology does not include PNG (domestic) connections.

18. Natural gas at a glance											
								(MMSCM)			
Details	2021-22	2022-23		February		1	April-Februa	ry			
	(P)	(P)	2022-23	2023-24	2023-24	2022-23	2023-24	2023-24 (P)			
			(P)	(Target)	(P)	(P)	(Target)				
(a) Gross production	34,024	34,450	2,651	3,143	2,947	31,494	34,851	33,299			
- ONGC	20,629	19,969	1,512	1,634	1,510	18,273	18,828	17,699			
- Oil India Limited (OIL)	2,893	3,041	233	251	246	2,780	2,887	2,813			
- Private / Joint Ventures (JVs)	10,502	11,440	907	1,258	1,191	10,441	13,136	12,787			
(b) Net production (excluding flare gas and loss)	33,131	33,664	2,595		2,887	30,775		32,646			
(c) LNG import [#]	31,028	26,304	1,834		2,445	23,755		27,933			
(d) Total consumption including internal consumption (b+c)	64,159	59,969	4,430		5,332	54,530		60,578			
(e) Total consumption (in BCM)	64.2	60.0	4.4		5.3	54.5		60.6			
(f) Import dependency based on consumption (%), {c/d*100}	48.4	43.9	41.4		45.9	43.6		46.110			

February 2024 DGCIS data prorated.



19. Coal Bed Methane (CBM) gas development in India										
Prognosticated CBM resources		91.8	TCF							
Established CBM resources		10.4	TCF							
CBM Resources (33 Blocks)		62.8	TCF							
Total available coal bearing areas (India)		32760	Sq. KM							
Total available coal bearing areas with MoPNG/DGH		12254*	Sq. KM							
Area awarded		21,177**	Sq. KM							
Blocks awarded*		39	Nos.							
Exploration initiated (Area considered if any boreholes were drilled	in the awarded block)	10670	Sg. KM							
Production of CBM gas	April-Feb 2024 (P)	593.65	MMSCM							
Production of CBM gas	52.73	MMSCM								

^{*}ST CBM Block awarded & relinquished twice- in CBM Round II and Round IV -Area considered if any boreholes were drilled in the awarded block. **MoPNG awarded 04 new CBM Blocks (Area 3862 sq. km) under Special CBM Bid Round 2021 in September 2022. ***Area considered if any boreholes were drilled in the awarded block.

19a. Status of Compressed Bio Gas (CBG) projects under SATAT (as on 01.03.2024) (Provisional)											
Particulars	Units	IOCL	HPCL	BPCL	GAIL#	IGL	Total				
No. of CBG plants commissioned and initiated sale of CBG	No. of plants	25	7	6	10	5	53				
Start of CBG sale from retail outlet(s)	Nos.	76	37	47	1	3	164				
Sale of CBG in 2022-23	Tons	5,822	77	6	5322		11,227				
Sale of CBG in 2023-24 (up to February, 2023)	Tons	5834	234	49	9156*		15273				
Sale of CBG in CGD network	GA Nos.				25		25				

#Sale of CBG sourced under CBG-CGD synchronization by GAIL through its own marketing channels and other CGDs/OMCs. *GAIL data is upto Jan-24

	20. Common Carrier Natural Gas pipeline network as on 31.12.2023													
Nature of pi	peline	GAIL	GSPL	PIL	IOCL	AGCL	RGPL	GGL	DFPCL	ONGC	GIGL	GITL	Others*	Total
Operational	Length	11,009	2,716	1,483	143	107	304	73	42	24	0	0	0	15,901
-	Capacity	167.2	43.0	85.0	20.0	2.4	3.5	5.1	0.7	6.0				-
Partially	Length	4,743	0	0	1,080	0	0	0	0	0	1,302	0	365	7,490
commissioned#	Capacity	55.0	0.0	0.0	84.7	0.0	0.0	0.0	0.0	0.0	122.5	0.0	0.0	-
Total operational len	gth	15,752	2,716	1,483	1,223	107	304	73	42	24	1,302	0	365	23,391
Under construction	Length	1,347	3	0	352	0	0	0	0	0	899	36	1,488	4,125
Officer construction	Capacity	26.3	3.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	36.0	0.0	-
Total lengt	th	17,099	2,719	1,483	1,575	107	304	73	42	24	2,201	36	1,853	27,516

Source: PNGRB; Length in KMs; Authorized Capacity in MMSCMD (Arithmetic sum taken for each entity -capacity may vary from pipeline to pipeline); *Others-APGDC, , IGGL, IMC,GTIL,HPPL Consortium of

H-Energy. Total authorized Natural Gas pipelines including Tie-in connectivity, dedicated & STPL is 33,347 Kms (P), however total operational and Under Construction Pipeline length is 35,217 Kms (P)

<u> </u>	21. Existing LNG terminals											
Location	Promoters	Capacity as on 01.03.2024	% Capacity utilisation (April-Jan 2024)									
Dahei	Petronet LNG Ltd (PLL)	17.5 MMTPA	95.3									
Hazira	Shell Energy India Pvt. Ltd.	5.2 MMTPA	32.6									
Dabhol	Konkan LNG Limited	*5 MMTPA	39.4									
Kochi	Petronet LNG Ltd (PLL)	5 MMTPA	20.6									
Ennore	Indian Oil LNG Pvt Ltd	5 MMTPA	17.5									
Mundra	GSPC LNG Limited	5 MMTPA	12.2									
Dhamra	Adani Total Private Limited	5 MMTPA	24.6									
Total Capacity 47.7 MMTPA												

^{*} To increase to 5 MMTPA with breakwater. Only HP stream of capacity of 2.9 MMTPA is commissioned

22. Status of PNG connections and CNG stations across India (Nos.), as on 31.01.2024(P)				
State/UT	CNG Stations		PNG connections	
(State/UTs are clubbed based on the GAs authorised by PNGRB)	CIVO Stations	Domestic	Commercial	Industrial
Andhra Pradesh	174	2,67,651	465	37
Andhra Pradesh, Karnataka & Tamil Nadu	43	8,780	3	6
Assam	14	54,156	1,387	453
Bihar	122	1,25,322	113	8
Bihar & Jharkhand	6	7,723	4	0
Bihar & Uttar Pradesh	19	57	0	0
Chandigarh (UT), Haryana, Punjab & Himachal Pradesh	28	26,651	163	43
Chhattisgarh	14	22	0	0
Dadra & Nagar Haveli (UT)	6	12,032	57	62
Daman & Diu (UT)	5	5,177	62	47
Daman and Diu & Gujarat	15	5,035	23	0
Goa	12	13,084	30	39
Gujarat	996	32,23,718	23,285	5,788
Haryana	360	3,36,926	897	2,216
Haryana	22	21,819	136	59
Haryana & Himachal Pradesh	10	37	0	0
Haryana & Punjab	27	1,005	0	0
Himachal Pradesh	12	7,111	20	0
Jharkhand	91	1,26,571	24	4
Karnataka	355	4,22,168	566	354
Kerala	124	60,711	39	19
Kerala & Puducherry	11	793	0	0
Madhya Pradesh	272	2,25,750	450	503
Madhya Pradesh and Chhattisgrah	7	0	0	0
Madhya Pradesh and Rajasthan	34	677	0	0
Madhya Pradesh and Uttar Pradesh	16	0	0	3
Maharashtra	832	32,97,383	4,794	966
Maharashtra & Gujarat	64	1,87,645	9	29
Maharashtra and Madhya Pradesh	15	0	0	0

State/UT		F		
(State/UTs are clubbed based on the GAs authorised by PNGRB)	CNG Stations	Domestic	Commercial	Industrial
National Capital Territory of Delhi (UT)	481	15,43,737	3,901	1,906
Odisha	91	1,02,859	8	0
Puducherry	2	0	0	0
Puducherry & Tamil Nadu	8	311	0	0
Punjab	215	80,739	591	287
Punjab & Rajasthan	12	93	0	0
Rajasthan	278	2,60,477	174	1,678
Tamil Nadu	268	17,336	6	13
Telangana	171	1,98,986	104	110
Telangana and Karnataka	4	0	0	0
Tripura	18	61,219	508	62
Uttar Pradesh	873	15,43,884	2,561	3,167
Uttar Pradesh	28	5,785	11	7
Uttar Pradesh & Rajasthan	43	20,486	48	349
Uttar Pradesh and Uttrakhand	27	14,453	0	0
Uttarakhand	35	72,022	88	96
West Bengal	88	5,886	3	1
Grand Total	6,348	1,23,66,277	40,530	18,312

Source: PNGRB

Note: 1. All the GAs where PNG connections/CNG Stations have been established are considered as Operational, 2. Under normal conditions. Operation of any particular GA commences within around one year of authorization. 3. State/UTs wherever clubbed are based on the GAs authorised by PNGRB.

2	23. Domesi	tic natural	gas price and gas pr	ice ceiling (GCV basis	
Period		Domest	ic Natural Gas price in	Gas price ceiling	in USS/MMBTU
February 2014 - March 2015			5.05	-	
April 2015 - September 2015			4.66	-	
October 2015 - March 2016			3.82	-	
April 2016 - September 2016			3.06	6.0	
October 2016 - March 2017			2.5	5.	
April 2017 - September 2017			2.48	5.5	
October 2017 - March 2018			2.89	6.	
April 2018 - September 2018			3.06	6.	
October 2018 - March 2019			3.36	7.0	
April 2019 - September 2019 October 2019 - March 2020			3.69 3.23	9.3	
April 2020 - September 2020			2.39	5.0	
October 2020 - March 2021			1.79		
April 2021 - September 2021			1.79	4.06 3.62	
October 2021 - March 2022			2.9	6.13	
April 2022 - September 2022			6.1	9.92	
October 2022 - March 2023			8.57	12.	
1 April 2023 - 7 April 2023			9.16	12.	12
Period	Domestic Ga	is calculated	Domestic Gas ceiling price for	Period	nr-n i Gas price ceiling in
		¢/MMRTII	ONGC/OIL in US\$/MMBTU	Periou	IIS\$/MMRTII
8 April 2023 - 30 April 2023		92	6.50		12.12
1 May 2023 - 31May 2023	8.	27	6.50		
1 June 2023 - 30 June 2023	7.	58	6.50	April 2023 - September 2023	
1 July 2023 - 31 July 2023		48	6.50	7 April 2023 September 2023	
1 Aug 2023 - 31 Aug 2023	7.	85	6.50		
1 Sept 2023 - 30 Sept 2023	8.	60	6.50		
1 Oct 2023 - 31 Oct 2023	9.	20	6.50		
1 Nov 2023 - 30 Nov2023	9.	12	6.50		
1 Dec 2023 - 31 Dec 2023	8.47		6.50	October'2023 - March 2024	9.96
1 Jan 2024 - 31 Jan 2024	7.	82	6.50	October 2025 - Waren 2024	5.90
1 Feb 2024- 29 Feb 2024	7.	85	6.50]	
1 Mar 2024- 31 Mar 2024	8.	17	6.50	1	

Natural Gas prices are on GCV basis

24. CNG/PNG prices					
City	CNG (Rs/Kg)		PNG (Rs/SCM)	Source	
Delhi	74.09		48.59	IGL website (11.03.2024)	
Mumbai	73.50	47.00		MGL website (11.03.2024)	
Indian Natural Gas Spot Price for Physical Delivery					
IGX Price Index Month Avg. Price		Price	volume	Source	
IGA FIICE IIIUEX MOIILII	INR/MMBtu	\$/MMBtu	(MMSCM)	Source	
`Feb 2024	888	10.70	27.90	As per IGX website:	

^{*}Prices are weighted average prices |\$1=INR 82.96| 1 MMBtu=25.2 SCM (Data Excluding Ceiling Price Gas)



North Dakota Department of Mineral Resources March 2024 Director's Cut and January 2024 Production Numbers

Oil Production Numbers

December 39,520,924 barrels = 1,274,869 barrels/day (final) **RF** +16%

New Mexico 56,180,976 barrels = 1,812,290+1.4%

January 34,177,679 barrels = 1,102,506 barrels/day -13.5% RF +.2%

1,519,037 all-time high Nov 2019

1,073,615 barrels/day = 97% from Bakken and Three Forks

28,891 barrels/day = 3% from Legacy Pools

Revenue Forecast 1,100,000 barrels/day

Crude Price (\$barrel)	ND Light Sweet	WTI	ND Market
December	61.46	72.12	64.99 RF -7%
January	63.64	73.86	66.40 RF -5%
Today	69.75	79.72	74.74 RF + 7 %
All-time high (6/2008)	125.62	134.02	126.75
Revenue Forecast			70.00

Gas Production and Capture

December	109,389,872 MCF	=	3,528,706 MCF/Day	
95% Capture	104,008,399 MCF	=	3,355,110 MCF/Day	
January	93,009,641 MCF	=	3,000,311 MCF/Day	-15%
93% Capture	86,943,905 MCF	=	2,804,642 MCF/Day	

3,582,821 MCF/day all-time high

production Dec 2023

3,355,110 MCF/day all-time high capture

Dec 2023

Wells Permitted

December 57 January 78 February 63

All-time high 370 in 10/2012

Rig Count

Federal Surface

New Mexico

December 36
January 38
February 38
Today 38

All-time high 218 on 5/29/2012

Waiting on Completions

December 331 January 284

Inactive

November 1,469 December 1,490

Completed

December 80

January 102 (Preliminary) February 92 (Preliminary)

0

106

Producing

December 18,769

January 18,691 (Preliminary) **NEW** All-time high 18,769

December/2023

16,500 wells 88% are now unconventional

Bakken/Three Forks Wells

2,191 wells 12% produced from legacy

conventional pools

IIJA Initial Grant	Wells PA	Sites Reclaimed
January	1	0
February	4	0
March	1	0
April	8	0
May	17	0
June	12	1
July	15	5
August	15	13
September	0	14
October	0	10
November	0	0
December	0	1
Total	73	44

Weekly updates are available at <u>Initial Grant Information - Plugging and Reclamation |</u>
<u>Department of Mineral Resources, North Dakota</u>

Fort Berthold Reservation Activity

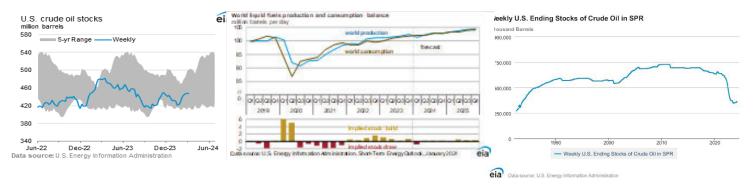
	Total	Fee Land	Trust Land	
Oil Production (barrels/day)	143,665	57,858	85,807	
Drilling Rigs	7	5	2	
Active Wells	2,661	652	2,009	
Waiting on Completion	24			
Approved Drilling Permits	135	10	125	
Potential Future Wells	2,019	1,411	608	

Comments:

The drilling rig count remains low due to demand, mergers, and acquisitions but is expected to return to the mid-forties with a gradual increase expected over the next 2 years.

There are 13 frac crews currently active.

Saudi Arabia and Russia announced continued oil production cuts through second quarter of the year. Middle East conflict, Russia sanctions, China economic activity, potential recessions, and shifting crude oil supply chains continue to create significant price volatility.



Crude oil transportation capacity including rail deliveries to coastal refineries is adequate, but could be disrupted due to:

US Appeals Court for the ninth circuit upholding of a lower court ruling protecting the Swinomish Indian Tribal Community's right to sue to enforce an agreement that restricts the number of trains that can cross its reservation in northwest Washington state.

DAPL Civil Action No. 16-1534 continues, but the courts have now ruled that DAPL can continue normal operations until the USACOE EIS is completed. **Corrected Draft EIS was released 9/11/23. North Dakota submitted comments 12/13/23** Comments are available by request at <u>Contact | Department of Mineral Resources, North Dakota (nd.gov)</u>.

Drilling - activity is expected to increase slightly and operators continue to maintain a permit inventory of approximately 12 months.



MONTHLY UPDATE

MARCH 2024 PRODUCTION & TRANSPORTATION

Published: March 14, 2024

Justin J. Kringstad, Director

North Dakota Pipeline Authority

Office: 701.220.6227

www.northdakotapipelines.com

MONTHLY UPDATE

MARCH 2024 PRODUCTION & TRANSPORTATION

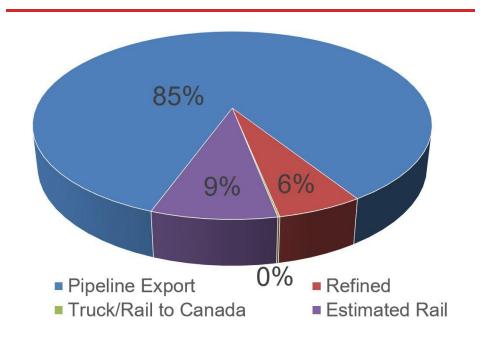
North Dakota Oil Production

Month	Monthly Total, BBL	Average, BOPD
Dec. 2023 - Final	39,520,924	1,274,869
Jan. 2024 - Prelim.	34,177,679	1,102,506

North Dakota Natural Gas Production

Month	Monthly Total, MCF	Average, MCFD
Dec. 2023 - Final	109,389,872	3,528,706
Jan. 2024 - Prelim.	93,009,641	3,000,311

Estimated Williston Basin Oil Transportation, Jan. 2024



CURRENT DRILLING ACTIVITY:

NORTH DAKOTA¹

38 Rigs

EASTERN MONTANA²

2 Rigs

SOUTH DAKOTA²

0 Rigs

SOURCE (MAR 14, 2024):

- 1. ND Oil & Gas Division
- 2. Baker Hughes

PRICES:

Crude (WTI): \$81.41

Crude (Brent): \$85.49

NYMEX Gas: \$1.71

SOURCE: BLOOMBERG (MAR 14, 2023 1PM EST)

GAS STATS*

93% CAPTURED & SOLD

6% FLARED DUE TO CHALLENGES OR CONSTRAINTS ON EXISTING GATHERING SYSTEMS

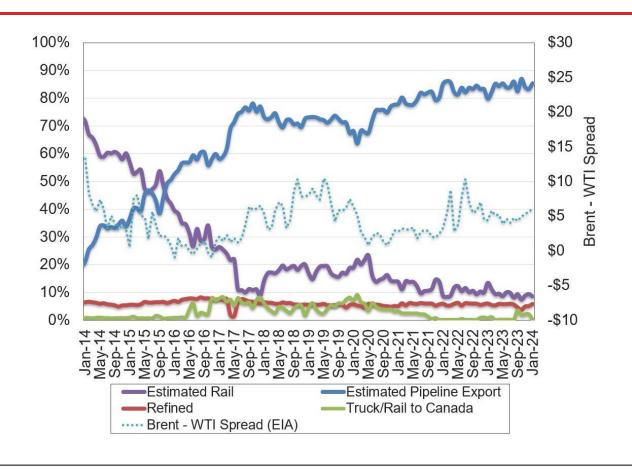
1% FLARED FROM WELL WITH ZERO SALES

*JAN 2024 NON-CONF DATA

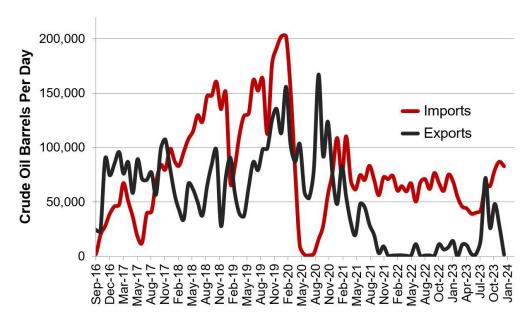
Estimated North Dakota Rail Export Volumes



Estimated Williston Basin Oil Transportation

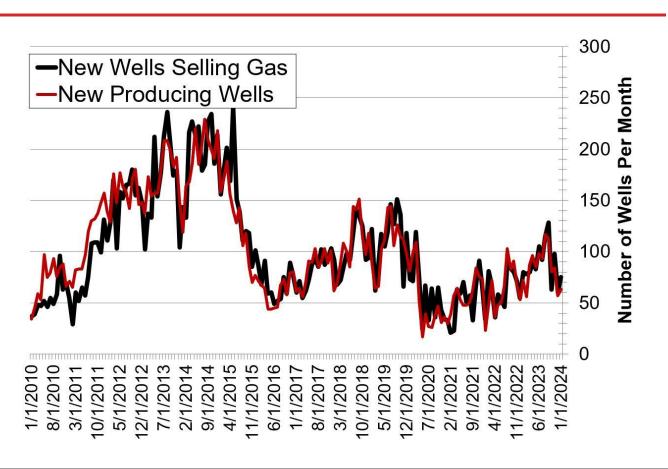


Williston Basin Truck/Rail Imports and Exports with Canada



Data for imports/exports chart is provided by the US International Trade Commission and represents traffic across US/Canada border in the Williston Basin area.

New Gas Sales Wells per Month



US Williston Basin Oil Production, BOPD

2023

MONTH	ND	EASTERN MT*	SD	TOTAL
January	1,062,880	62,114	2,610	1,127,604
February	1,159,030	63,553	2,475	1,225,058
March	1,124,899	64,593	2,652	1,192,144
April	1,135,850	61,932	2,557	1,200,339
May	1,140,209	61,279	2,560	1,204,048
June	1,174,388	59,707	2,275	1,236,370
July	1,186,759	56,865	2,311	1,245,935
August	1,220,772	62,197	2,540	1,285,510
September	1,290,103	62,753	2,504	1,355,361
October	1,255,227	62,277	2,452	1,319,956
November	1,278,909	62,291	2,448	1,343,649
December	1,274,869		_	

2024

MONTH	ND	EASTERN MT*	SD	TOTAL
January	1,102,506			
February				
March				
April				
May				
June				
July				
August				
September				
October				
November				
December				

^{*} Eastern Montana production composed of the following Counties: Carter, Daniels, Dawson, Fallon, McCone, Powder River, Prairie, Richland, Roosevelt, Sheridan, Valley, Wibaux

https://www.convenience.org/Topics/Fuels/Changing-Seasons-Changing-Gas-Prices

Seasonal Gas Prices Explained

From refinery maintenance to consumer demand, seasonal fuel production affects gasolines prices at the dispenser.

February 28, 2024 3 min read

Traditionally, gasoline prices are at their lowest during the first week of February and then begin to climb, often peaking right before Memorial Day. Seasonal increases in demand plus a transition to unique fuel blends put pressure on gas prices each spring.

Since 2000, gasoline prices have increased about 50 cents from the seasonal low at the beginning of February to the seasonal high in mid-May. Here's a timeline of events that can affect gas prices during the first half of the year.

February: Refinery Maintenance

U.S. demand for gasoline is generally at its lowest during the first two months of the year, so refinery maintenance, known as a "turnaround," is often scheduled during the first quarter. A turnaround is a planned, periodic shut down (total or partial) of a refinery process unit or plant to perform maintenance, overhaul and repair operations and to inspect, test and replace materials and equipment.

Refineries undergo turnarounds roughly once every four year so about 25% of refineries undergo a turnaround each spring. Another reason for scheduling turnarounds is that they allow refineries to retool for summer-blend fuels.

March-April: Refineries Switch to Summer-Blend Production

The U.S. Environmental Protection Agency (EPA) defines April to June as the "transition season" for fuel production. Refineries lead this transition and switch over to summer-blend production in March and April.

Gasoline blends used in the summer months are different than the blends used in the winter. In the winter, fuels have a higher Reid vapor pressure, meaning they evaporate more easily and allow cars to start in colder weather. In the warm summer months, these evaporative attributes would lead to increased emissions and the formation of smog.

There are also more fuels to produce during the transition season. In the winter months, only a few fuels are used across the United States. However, because of various state or regional requirements, <u>14 different fuel specifications</u> are required for the summer months. Refineries must produce enough fuel for each area to ensure there are no supply shortages, and that can complicate the production and distribution of fuels.

Summer-blend fuel is also more expensive to make than winter-blend fuel. First, the production process takes longer and, second, the overall yield of gasoline per barrel of oil is lower. These complexities add as much as 15 cents per gallon to the cost to produce these higher-grade fuels.

May-June: Deadlines for Terminals and Retailers

The May 1 compliance deadline for terminals to fully purge their systems of winter-blend fuels is considered one of the biggest factors in seasonal price increases. This regulatory requirement can lead to lower inventories at the terminal, which also puts upward pressure on gas prices. It can also take fuels refined in the Gulf Coast several weeks to reach storage terminals throughout the country, which is why it's important to have summer-blend fuel at terminals and storage facilities by May 1. This date is the most important reason that seasonal gas prices tend to peak in May.

In most areas of the country that require summer-blend fuels, retailers have until June 1 to switch to summer-grade gas.

February-August: Summer Drive Season and Increased Demand

Demand can play a role in elevating seasonal gas prices. Gas demand increases a few percentage points each month beginning in February and peaks in August. Total fuel demand is 10% to 15% greater in August than in February, and any stress to the system—such as a refinery or pipeline outage—can cause a supply/demand imbalance and affect prices.

September: A Welcome Change

As gasoline demand decreases and temperatures cool, retailers are able to switch to selling winterblend fuel beginning September 15. While these winter-blend fuels are cheaper to produce, the complications of the switchover can result in a temporary bump in price. Weather conditions, such as hurricanes, can also affect gas prices in the late summer to fall months.

Unlike in the spring, the change to winter-blend fuel is not required. However, because winter-blend fuel costs less, retailers often sell the fuel blend to remain price competitive. Not all retailers begin selling this fuel on September 15; many make the switch when their inventories are low.

By the end of September, gas prices generally decrease as the switchover processes and demand continues to fall. And despite conspiracy theories, <u>lower gas prices do not correlate to pre-election</u> politics.

In California, the season for summer-blend fuels is longer than the rest of the country. Both Northern and Southern California's summer-blend requirements run through the end of October. This exacerbated supply issues within the state in early October 2012, when fires at two large refineries limited state-specific production and caused wholesale and retail gas prices to spike to record levels.

Meanwhile, demand for distillate fuel (diesel fuel and home heating oil) begins to increase in September because of both greater diesel fuel demand related to the harvest and greater home heating oil demand because of the colder weather.

Exceptions to the Rule

Summer-blend fuel requirements may be relaxed in times of emergencies or when potential shortages are possible.

In 2005, NACS worked with Congress to give the EPA the authority to waive certain regulations affecting the motor fuels system in times of emergency. The EPA's immediate use of these waivers is critical to bringing the entire fuel supply chain into operation as quickly and safely as possible. For example, this flexibility allowed winter blends of gasoline to enter into the market in 2017 before the traditional transition date of September 15 in response to Hurricanes Harvey, Irma and Maria.

Petrobras Hunts for More Oil as Production Growth Falters (1) 2024-02-07 11:58:48.613 GMT

By Mariana Durao

(Bloomberg) -- The oil market is losing a key source of growth this year because production from Brazilian oil giant Petrobras is flat-lining after a surge in 2023.

The problem is twofold. Some major fields that the state-controlled oil giant brought on line in the early 2010s have peaked and started to fade. At the same time, there's a lull in the delivery of new production equipment for its fields that are still expanding. As a result, Petrobras doesn't expect to report year-on year growth again until 2026.

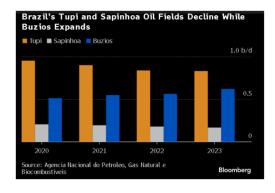
This means any near-term expansion from Brazil will come from foreign oil companies and local junior producers who only operated 12% of the country's output last year. Petrobras's head of exploration and production, Joelson Mendes, is in a rush to explore areas outside of a deep-water region in the Atlantic known as the pre-salt that delivers more than 70% of Brazil's production. Otherwise, Brazil's overall output only grow until about 2030 and then start to plummet.

"The pre-salt won't last forever," Mendes said in an interview at one of the company's corporate towers in Rio de Janeiro. "By 2050, Brazil will be an insignificant country in terms of oil production" unless Petrobras finds more oil.

It's a sharp reversal. Brazil grew more last year than any other country apart from the US and Iran in a development that contributed to OPEC+ constraining output to shore up prices. Petrobras's extended lull will offer a modicum of relief to OPEC and Russia, even though output in the US and Guyana is set to continue growing. Recent geopolitical tension in the Middle East highlights how production from other regions is crucial for global energy security.

Fading Fields

Petrobras's main challenge is Tupi. It was the first field in the pre-salt — named for the thick layers of salt above the crude — to come into production in 2010 and is still Brazil's biggest producer at 832,000 barrels a day of oil last year. But it has declined 13% since peaking in 2020. Petrobras's partners at the field are Shell PLC and Galp Energia SGPS SA. A smaller pre-salt field known as Sapinhoa has fallen 18% since 2020, according to Brazil's oil regulator. The declines are offsetting growth at other projects such as Buzios, which is even bigger than Tupi in terms of potential.



The company is taking action to limit Tupi's annual pace of decline to 7% to 8% a year, compared to an average of about 10% for Petrobras as a whole, said Mendes. It is waiting on the oil regulator to extend the contract into the 2060s. Petrobras needs the approval to justify investing billions of dollars to extract additional barrels.

A new floating production vessel and associated equipment could cost up to \$7 billion, and wouldn't be ready until 2029 at the earliest, Mendes said. This year Petrobras is only adding one of the 14 so-called FPSOs that it plans to install by 2028, which pushes out the next big jump in production to later in the decade.

According to Mendes, many analysts have a more optimistic view on production than the company, which takes into account complications from maintenance work and equipment delivery delays. The International Energy Agency expects Brazil to grow by 240,000 barrels a day this year.

Equatorial Margin

The offshore basin Petrobras is most excited to explore is known as Foz do Amazonas, where it has been battling with Brazilian authorities for drilling permits in an environmentally sensitive area off the coast of the mouth of the Amazon. Petrobras was expecting an appeal to be resolved this month, but an ongoing strike at the Ibama environmental agency adds uncertainty, Mendes said.

In the meantime, the company will drill a second well in another section of what is known as the Equatorial Margin as soon as this month. The oil industry has high expectations that the region could hold major fields similar to what Exxon Mobil Corp. is developing in Guyana.

Internationally, Petrobras's main focus is Colombia where it continues to explore a major offshore gas discovery and plans to drill at least two more wells this year. If successful, there could be enough gas to supply Colombia and also justify an export terminal, Mendes said.

Petrobras is also studying seismic data at three exploration blocks in Sao Tome and Principe, two volcanic islands off the coast of central Africa that have shown geologic similarities to Guyana. The company bought minority stakes in the blocks from Shell late last year, marking a return to Africa where previous management had sold assets. Petrobras is also interested in acquisitions elsewhere in Africa, including Nigeria.

"We have ongoing talks," he said. "We're going back because we have interest and we have experience."

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To contact the editors responsible for this story:
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Peter Millard, Sam Hall

To view this story in Bloomberg click here: https://blinks.bloomberg.com/news/stories/S8HIETDWX2PS



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

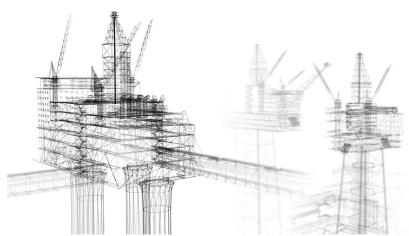


Illustration of a production facility on the Norwegian Continental Shelf.

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

opened their arbitrage, that's been closed for quite a while. So that's, of course, a positive indicator for the crude differential.

And then your question on Valhall and the impairment case. Valhall is not impaired in this quarter. And I don't think there are any changes to the 2C reserves or resources on Valhall in this quarter either.

A - David Tonne {BIO 20925193 <GO>}

I can qualify that. So there's impairment of technical goodwill on Valhall this quarter, together with Edvard Grieg and Ivar Aasen, which is, of course, is a bit specific. But it's not impairment of resources. So this is, of course, driven, as you know, and most of you on the line know, by previous acquisitions and the way that we have to account for the differences in accounting and tax. So, that's to be expected over time, specifically in quarters, when the forward curve for oil and gas prices drops. And as you are producing out, call it volumes in the asset.

Q - Yoann Charenton {BIO 17372477 <GO>}

Thank you. Have a nice day, then.

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

Thank you. Let's move on, Kjetil.

A - Kjetil Bakken {BIO 20629786 <GO>}

Yes, absolutely. It's from John Olaisen from ABG. Please, John, go ahead.

Q - John Olaisen {BIO 4949660 <GO>}

Yeah, thank you for taking my question. And good morning, everybody. I can see from fax [ph] pages from the Norwegian offshore directorate that the water production is increasing significantly at the Johan Sverdrup field. So I just wonder if the watering production is higher than expected? And also I had hoped for plateau to be taken -- coming off the plateau would be taking place a little bit later than 2024. But if you could elaborate a little bit about that, do you have sufficient water handling capacity on the top sides, et cetera? And is there anything you could do to handle the water -- increase the water handling capacity and thereby extend plateau? And also maybe if you could elaborate a little bit of what kind of depletion rates we should expect from Johan Sverdrup once it goes off the plateau. And what can be done to fight that apart from, of course, a Phase 3? Thank you.

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

Good. Excellent question. Yes, you are right. We are seeing water in some wells in Johan Sverdrup. The behavior is really related to well by well coning and not -- it's not an overall well. It's not an overall field water-cut development. It's a well issue. We are, in the course of 2024, putting another eight wells on stream on Johan Sverdrup, which will limit the issue as it's directly correlated and linked to well rates.

And of course, the total field rails are capped to the water handling and oil handling capacity. Oil handling, of course, standing at 755,000 barrels of oil equivalents.

So I think the main issue here is to get more wells on stream and therefore more or less production per well. And then, of course, the water handling capacity is at the moment significant and quite in line with what we expected and sufficient for treating the water. And then, of course, the last issue will be mass balance in the reservoir, and we're just doing a turnaround to change out the water injection pump, which are now basically done I think, to make sure that there is sufficient capacity. So those are the three main initiatives that is ongoing in 2024 to extend the plateau. And then, of course, the next line of things will be new wells. And this is as with all oil and gas fields, as you reach the end of the plateau, the way to extend the plateau is to increase capacity, particularly water treatment capacity and gas treatment capacity, and add IOR wells. I mean, this is bread and butter for the oil and gas industry. This is what we do in all fields.

Q - John Olaisen {BIO 4949660 <GO>}

And then on depletion rates once it goes off plateau, please?

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

Yeah. That's -- I don't think I'll guide on that John, at this point in time. And the reason is that, yeah, of course, from a technical perspective, you will see the largest depletion rates, relatively speaking, in the first few months after you go off battle. But they will depend on water volume, on the increase in water volume, well stock, et cetera, et cetera. So that's a pretty difficult assessment to make at this point in time.

Q - John Olaisen {BIO 4949660 <GO>}

But the potential plateau in the second half of 2024, is that what you had expected and what you already have in your charts showing the expected production profile for (inaudible) in the years to come, or is it a little bit earlier?

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

So I would say that this -- as you know, we increased the plateau level quite significantly above nameplate capacity in 2023. And it's been producing extremely well at this level, with nearly 100% uptime, low cost, highly energy efficient. One year ago, I would say we expected it to continue that well into 2025. And the operator has now basically said that they assume that this level can be sustained. It's probably a good word until late 2024 or early 2025.

And it's the uncertainty and that timing that is basically incorporated into the guidance of 2024. And of course, that means that maybe starting another -- but that means that when we assessed this earlier, we had an assumption that it'll carry well into 2025. That, of course, means that the guidance for 2024 is a bit lower than we assumed a year ago, but it also means that in the next couple of years, we'll be impacted by this, call it, a little bit more conservative phasing of production. But it's important to note that there are no reserve changes. This is essentially a phasing of production related to the production strategy at the field.

By Bill Lehane

(Bloomberg) -- Nigeria's crude oil output dropped to 1.32m b/d in February, the lowest since November, according to data from the country's upstream petroleum regulatory commission.

- * Down from 1.43m b/d in January; Numerous key grades saw production decline to multi-month lows
- * Output of crude oil and condensates combined decreased to 1.54m b/d, also the lowest since November, from a two-year high of 1.64m b/d in January
- ** Akpo output dropped to 1.53m bbl, the lowest since at least January 2020
- ** Qua Iboe production dropped to the lowest in 10 months
- * Other selected crude and condensate output data for February, comparison with January, in total barrels:

Terminal/Stream	February	January	Notes on February output*
Qua Iboe	3.71m	4.3m	Lowest since April
Forcados	7.59m	8.75m	Lowest since November
Escravos	3.73m	4.24m	Lowest since September 2022
Agbami	2.84m	2.94m	Lowest since September
Bonga	3.6m	3.75m	Lowest since February 2023
Egina	2.61m	2.88m	Lowest since November
Bonny	5.19m	6.9 4 m	Lowest since November
Amenam	2.73m	2.94m	Lowest since December
Акро	1.53m	1.66m	Lowest since at least 2020

- * See Excel data for February and January
- * NOTE: Output notes are based on total barrels, not daily flow rates

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03/13/2024 10:05:44 [BN] Bloomberg News

Ukraine Hits Third Russian Refinery in Escalating Drone Strikes

- Fire at Ryazan refinery caused by drone attack, governor said
- Putin said Ukrainian campaign aims to interfere with election

By Bloomberg News

(Bloomberg) — Ukrainian drone attacks halted three oil refineries deep within Russian territory in an assault President Vladimir Putin said was aimed at disrupting his presidential election later this week.

An aerial strike on Wednesday caused a blaze at one of the country's biggest crude-processing facilities, Rosneft PJSC's Ryazan plant near Moscow. The smaller Novoshakhtinsk refinery in the southern Rostov region was also halted by a drone attack, adding to the disruption caused by a similar incident at Lukoil PJSC's Norsi plant on Tuesday.

Since the start of this year, Ukraine has used drones to target important Russian oil facilities from the Black Sea to the Baltic Sea. As fighting on the front lines swings in Moscow's favor, Kyiv has been trying to hamper the country's oil–product exports and its ability to send fuel to its forces. An initial flurry of attacks in February affected almost a fifth of the country's crude–processing capacity, but by early March the industry was already recovering.

Ukrainian strikes in Russian regions "are aimed at, if not frustrating the elections in Russia, then interfering with them," Putin said in an interview with the RIA Novosti news service published Wednesday. "Another goal is to get some kind of trump card in a possible negotiation process."



WATCH: Video authenticated by AP shows a drone attack on Rosneft's largest oil refinery.

The Ryazan refinery, about 200 kilometers (124 miles) southeast of Moscow, has a capacity of 17.1 million tons a year, or around 340,000 barrels a day. It is a major supplier of motor fuels for Russian regions around the capital.

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The drone attack "started a fire" at Ryazan that was later extinguished, regional Governor Pavel Malkov said Wednesday on his Telegram channel, without giving details of the extent of any damage. Two people were hospitalized, the Tass news service reported. The plant had to shut down two primary oil refining units, Reuters reported, citing two people familiar with the matter.

The attacks underline how the invasion of Ukraine that was intended to last a few days is instead leading to growing insecurity for ordinary Russians living in regions near the border as the war enters its third year. That's in sharp contrast to Kremlin claims that Putin is the guarantor of the country's defense.

The Russian Defense Ministry said its forces intercepted 58 drones overnight in the Belgorod, Bryansk, Voronezh, Kursk, Ryazan and Leningrad regions. That's among the largest assaults in recent months.



Smoke rises from the Ryazan refinery in Russia, in a video released by AP on March 13.

Later on Wednesday, the independent Novoshakhtinsk refinery in Russia's southern Rostov region halted operations after a drone strike, regional governor Vasily Golubev said on Telegram, while giving no details of any damage. The facility has a capacity of 5.6 million tons per year, or around 112,000 barrels a day.

The three facilities hit by Ukrainian drones in the past two days account for about 12% of Russia's oil-processing capacity.

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Ukrainian President Volodymyr Zelenskiy said it was "totally fair" to inflict losses on the Russian state in retaliation for missile and drone attacks that are killing and injuring civilians in his country.

"I think everyone sees that our drones work, and they work at long distance," Zelenskiy said in an address late Tuesday. "Our ability for long-distance strikes is the real way to move towards security for everyone."

The latest wave of attacks that started Tuesday damaged a unit of Lukoil PJSC's Norsi refinery in Nizhny Novgorod and hit an oil depot in the Oryol region. Ukrainian drones also repeatedly targeted Surgutneftegas PJSC's Kinef refinery in Kirishi, on the Baltic coast, according to Leningrad region Governor Alexander Drozdenko. A drone targeting the Kinef refinery early Wednesday was downed, Drozdenko said.

Kinef is a major facility focused on making fuel for exports. Any significant disruption at this plant would have knock-on effects on the global diesel market.

Russia Battles Attacks by Ukrainian Drones, Rebel Troops

Ukraine was targeting the refineries in Ryazan, Kirishi and Norsi, a Ukrainian official with knowledge of the matter said.

The governor of Russia's southern Voronezh region, Aleksandr Gusev, said 30 drones were destroyed. Some infrastructure and residential properties sustained "minor damage," he said.

The attacks are taking place as Russia prepares for the March 15-17 presidential election that's been tightly controlled

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by the Kremlin to deliver an overwhelming victory for Putin and another six years in power.

Ukraine has launched drones targeting Russian infrastructure and industrial facilities, as it seeks to undermine the Kremlin's war effort and retaliate for waves of missile and drone assaults on its own territory since the February 2022 invasion began.

The strikes on oil facilities also aim to disrupt Russia's exports and fuel supplies to the Russian army on the front lines.

"We are fighting everything that finances Russia's army and the war," Andriy Yermak, Zelenskiy's chief of staff said, after Russian air strikes killed and injured civilians in three cities overnight. "Russia is fighting civilians and apartment blocks."

Ukraine Says Russia Strikes Apartment Blocks, Killing Civilians

In his interview with state-run RIA, Putin said Russia would demand security guarantees to consider talks to end the war in Ukraine and reiterated that "realities on the ground" should be the basis of any negotiations.

"We are primarily interested in the security of Russia," Putin said. "We will proceed from that."

Asked if a "fair deal" with the West is possible, Putin replied: "I don't trust anyone, but we need assurances."



Ukrainian soldiers in their fighting position in Kharkiv on March 6.

Ukraine's government has previously rejected any deal involving territorial concessions that would reward Putin's aggression. Putin has declared four annexed regions of eastern and southern Ukraine to be "forever" part of Russia, even as his forces don't fully control them.

Russian troops have made recent advances as the government in Kyiv struggles to keep its military supplied with munitions following delays in aid from its US and European allies. Zelenskiy claimed this week that his forces have

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halted Russia's offensive and were stabilizing the front line.

Putin said the thought of using tactical nuclear weapons in Ukraine had never crossed his mind and there's never been a need for them. He didn't think Russia and the US were heading toward a nuclear conflict.

Still, he said countries that declared they had no red lines toward Russia should understand that Russia would respond in the same way.

--With assistance from Daryna Krasnolutska.

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03/15/2024 12:37:21 [BN] Bloomberg News

Russia's Oil Refining Increased Before Latest Ukrainian Attacks

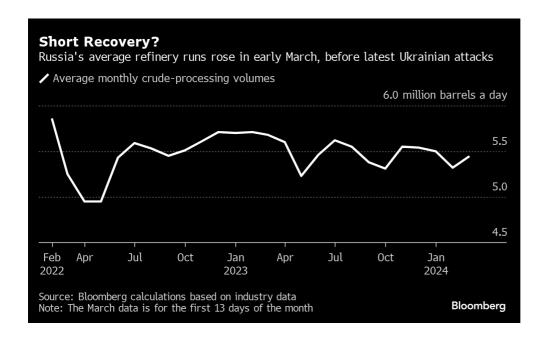
- Runs rose to 5.44 million barrels a day for March 1-13
- Drone strikes damaged two major Russian refineries this week

By Bloomberg News

(Bloomberg) -- Russia's oil-processing rates increased to the highest level in almost two months before a flurry of recent drone attacks from Ukraine targeted several plants.

Refiners processed 5.44 million barrels of crude a day from March 1–13, according to a person with knowledge of industry data. That's almost 7,000 barrels a day above the last two weeks of February, when the downstream sector showed recovery from a previous wave of drone strikes earlier in the year.

This week Ukraine intensified its assault on Russian oil-processing facilities ahead of elections that will hand Vladimir Putin a fifth presidential term. The attacks could disrupt domestic fuel supplies, a politically sensitive issue in Russia, and reduce revenues from one of the nation's key industries.



An aerial strike on March 13 <u>caused a blaze</u> at one of the country's biggest crude-processing facilities, Rosneft PJSC's Ryazan plant near Moscow, forcing the refinery to shut down two primary oil refining units. That added to disruption caused by a similar incident at Lukoil PJSC's Norsi plant on March 12, when the refinery halted a unit.

This week Ukrainian drones also targeted Surguteftegas PJSC's Kirishi refinery near St. Petersburg, Putin's hometown. The Novoshakhtinsk facility in the southern Rostov region was hit separately on Wednesday, and a small petrochemical

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plant near the Moscow region was targeted on Friday.

The attacks will likely reduce Russia's refinery runs by at least 300,000 barrels a day this year, with the risk skewed to the upside, according to a note from JPMorgan analysts including Natasha Kaneva.

Russia may increase crude oil exports amid lower primary processing rates, according to First Deputy Energy Minister Pavel Sorokin, as reported by Tass earlier this week.

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03/12/2024 06:03:56 [BN] Bloomberg News

Russia's Crude Shipments Rebound to the Highest Level This Year

Pacific cargoes surged to take overall flows to 3.7 million barrels a day in the week to March 10

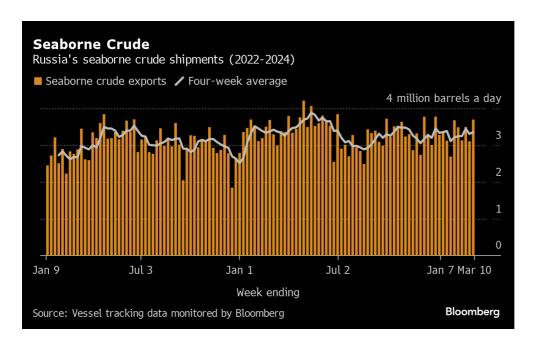
By Julian Lee

(Bloomberg) -- Russia's seaborne crude exports surged to the highest level for the year so far, with shipments from a key Pacific port rebounding after a storm hampered loading operations in the previous week.

The 590,000-barrels-a-day jump in the week to March 10 came shortly after Moscow renewed its commitment to the OPEC+ effort to avert a global surplus and shore up prices by restricting output. Weekly flows were 420,000 barrels a day above Russia's pledge to its partners for the first quarter, with the four-week average topping the target by 80,000 barrels a day.

Over the course of the second quarter, the Kremlin plans to move away from export targets in favor of a production cap. The country's compliance with its current pledge to reduce crude output slipped last month after reaching almost 100% at the start of the year.

The gross value of crude shipments jumped to the highest since October, rising to \$1.86 billion in the seven-day period, despite an international sanctions regime designed to crimp President Vladimir Putin's ability to finance the war in Ukraine, which has now stretched into a third year.



Eleven tankers were loaded at the Pacific port of Kozmino last week. That's just one fewer than the record number seen in the week to Feb. 4 and up by five from the storm-hit operations of the previous week, when winds reached 40 miles an hour, according to weather data provider visualcrossing.com.

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Separately, shipments of Sokol crude from De Kastri, 700 miles further north, have returned to near normal levels, with shuttle tankers making direct deliveries to Chinese refiners, rather than transferring cargoes onto other ships for delivery. Flows to Indian plants remain at a trickle though, with 10.5 million barrels still on tankers idling in the East China Sea, or anchored near China's ports.

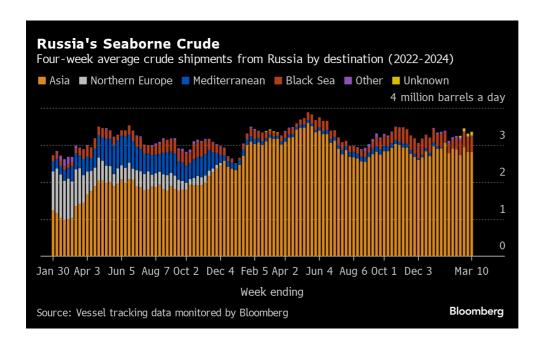
A first Sokol cargo has been delivered to a refinery near Pakistan's port of Karachi.

The gross value of Russia's crude exports climbed from a revised \$1.53 billion the previous week. The four-week average income also edged higher, rising by about \$50 million to \$1.66 billion a week.

Flows by Destination

Russia's seaborne crude flows in the week to March 10 climbed to 3.7 million barrels a day, a year-to-date high. The less volatile four-week average also rose, up by about 50,000 barrels a day to 3.36 million barrels a day.

Weekly shipments were about 120,000 barrels a day above the average seen in May and June, or about 420,000 barrels a day above Russia's first quarter target. The four-week average was about 80,000 barrels a day above the target.



All figures exclude cargoes identified as Kazakhstan's KEBCO grade. Those are shipments made by KazTransoil JSC that transit Russia for export through the Black Sea port of Novorossiysk and the Baltic's 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 grade. Since Russia's invasion of Ukraine, Kazakhstan has rebranded its cargoes to distinguish them from those shipped by Russian companies.

Asia

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Observed shipments to Russia's Asian customers, including those showing no final destination, edged higher to 2.92 million barrels a day in the four weeks to March 10, up from a revised 2.89 million in the previous four-week period.

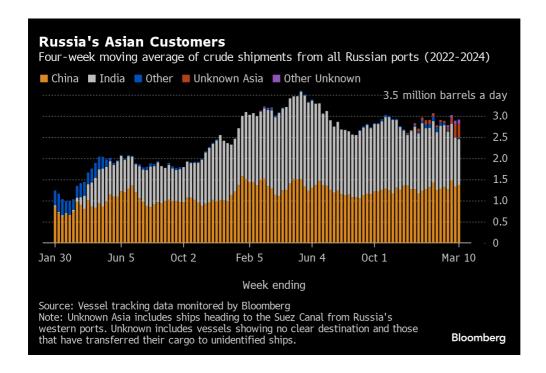
About 1.37 million barrels a day of crude was loaded onto tankers heading to China. The Asian nation's seaborne imports are boosted by about 800,000 barrels a day of crude delivered from Russia by pipeline, either directly, or via Kazakhstan.

Flows on ships signaling destinations in India averaged about 1.08 million barrels a day.

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

The equivalent of about 320,000 barrels a day was on vessels signaling Port Said or Suez in Egypt, or are expected to be transferred from one ship to another off the South Korean port of Yeosu. Those voyages typically end at ports in India or China and show up in the chart below as "Unknown Asia" until a final destination becomes apparent. This figure includes stranded Sokol crude cargoes that have failed to discharge in India since mid-December.

The "Other Unknown" volumes, running at about 100,000 barrels a day in the four weeks to March 10, are those on tankers showing no clear destination. Most of those cargoes originate from Russia's western ports and go on to transit the Suez Canal, but some could end up in Turkey. Others could be moved from one vessel to another, with most such transfers now taking place in the Mediterranean, off the coast of Greece.



Europe and Turkey

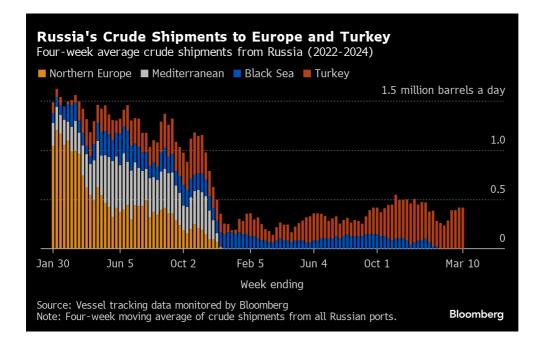
Russia's seaborne crude exports to European countries have ceased.

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With flows to Bulgaria halted at the end of last year, Turkey is now the only short-haul market for shipments from Russia's western ports.



Exports to Turkey remained steady at about 417,000 barrels a day in the four weeks to March 10. That's equal to the highest since the week ended Dec. 5 and up from about 390,000 barrels a day in the period to Feb. 25.

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.

Export Value

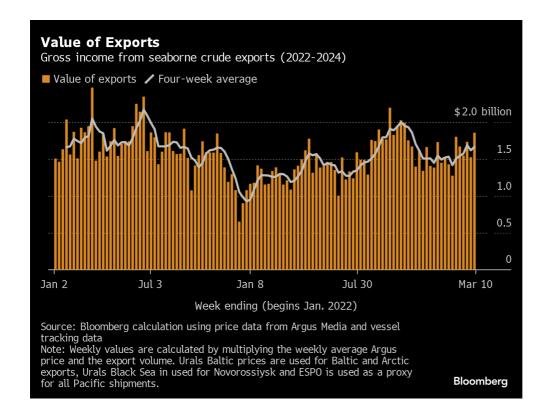
Following the abolition of export duty on Russian crude, we have begun to track the gross value of seaborne crude exports, using Argus Media price data and our own tanker tracking.

The gross value of Russia's crude exports soared to the highest since October, jumping to \$1.86 billion in the seven days to March 10 from a revised \$1.53 billion the previous week. Meanwhile four-week average income edged higher, rising by about \$50 million to \$1.66 billion a week. The four-week average is still well off its peak of \$2.17 billion a week, reached in the period to June 19, 2022. The highest it reached last year was \$2 billion a week in the period to Oct. 22.

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.

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The chart above shows a gross value of Russia's seaborne oil exports on a weekly and four-week average basis. The value is calculated by multiplying the average weekly crude price from Argus Media Group by the weekly export flow from each port. For shipments from the Baltic and Arctic ports we use the Urals FOB Primorsk dated, London close, midpoint price. For shipments from the Black Sea we use the Urals Med Aframax FOB Novorossiysk dated, London close, midpoint price. For Pacific shipments we use the ESPO blend FOB Kozmino prompt, Singapore close, midpoint price.

Export duty was abolished at the end of 2023 as part of Russia's long-running tax reform plans.

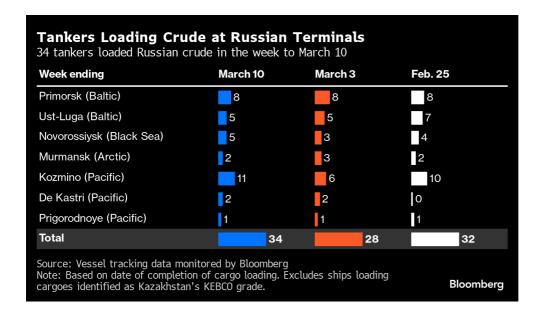
Ships Leaving Russian Ports

The following table shows the number of ships leaving each export terminal.

A total of 34 tankers loaded 25.9 million barrels of Russian crude in the week to March 10, vessel-tracking data and port agent reports show. That was up by about 4.1 million barrels from the previous week and the highest so far this year.

Shipments from Russia's Pacific terminal at Kozmino rebounded from the previous week's storm-hit level to reach a five-week high.

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All figures exclude cargoes identified as Kazakhstan's KEBCO grade. One cargo of KEBCO was loaded at Ust-Luga a during the week.

NOTES

Note: This story forms part of a weekly series tracking shipments of crude from Russian export terminals and the gross value of those flows. Weeks run from Monday to Sunday. The next update will be on Wednesday, March 20.

Note: All figures exclude cargoes owned by Kazakhstan's KazTransOil JSC, which transit Russia and are shipped from Novorossiysk and Ust-Luga as KEBCO grade crude.

If you are reading this story on the Bloomberg terminal, click here 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 February, the OPEC Reference Basket (ORB) rose by \$1.19, or 1.5%, m-o-m, to average \$81.23/b. Oil futures prices averaged higher, with the ICE Brent front-month contract up by \$2.57, or 3.2%, m-o-m, to average \$81.72/b, and the NYMEX WTI front-month contract up by \$2.75, or 3.7%, m-o-m, to average \$76.61/b. The DME Oman front-month contract rose by \$2.00, or 2.5%, m-o-m, to settle at \$80.95/b. The front-month ICE Brent/NYMEX WTI spread further narrowed in February by 18¢ to average \$5.11/b. The market structures of oil futures prices strengthened and money managers turned more bullish on oil.

World Economy

The world economic growth forecast for 2024 is revised up slightly to stand at 2.8%, with economic growth forecast unchanged at 2.9% for 2025. In the United States, economic growth for 2024 is revised up to 1.9%, as the healthy momentum from 2H23 is expected to continue, while the forecast for 2025 remains at 1.7%. The economic growth forecast for the Eurozone remains at 0.5% for 2024 and 1.2% for 2025, while Japan's economic growth forecast is revised down to 0.8% in 2024, followed by 1% in 2025. China's economic growth forecast remains at 4.8% in 2024 and 4.6% in 2025. Meanwhile, India's economic growth forecast is revised up to 6.6% for 2024 and 6.3% in 2025. Brazil's economic growth forecast for 2024 is revised up to 1.6%, while the forecast for 2025 remains unchanged at 1.9%. Russia's economic growth forecasts for 2024 and 2025 remain unchanged at 1.7% and 1.2%, respectively.

World Oil Demand

The 2024 global oil demand growth forecast remains unchanged at 2.2 mb/d, y-o-y. Oil demand growth in OECD Asia Pacific is revised down slightly for 1Q24, due to expected lower performance in the manufacturing and petrochemical sectors of Japan and South Korea. However, this is offset by upward adjustments for India and Other Asia, reflecting anticipated improvements during the same period. With this, the OECD is forecast to expand by around 0.2 mb/d, and non-OECD by 2.0 mb/d this year. In 2025, global oil demand is forecast to grow by 1.8 mb/d, y-o-y, unchanged from last month's assessment, with the OECD growing by 0.1 mb/d and non-OECD by 1.7 mb/d.

World Oil Supply

The non-OPEC liquids production in 2024 is expected to grow by 1.1 mb/d, slightly revised down from the previous month's assessment. The revision takes into account the recently announced additional voluntary production adjustments by some countries in the Declaration of Cooperation (DoC) in 2Q24 and the rest of 2024. In 2024, the main drivers for liquids supply growth are expected to be the US, Canada, Brazil and Norway, while the largest declines are anticipated in Russia and Mexico. The forecast for non-OPEC liquids supply growth in 2025 stands at 1.4 mb/d, revised up from the previous month mainly due to the base changes made in 2024. The growth is mainly driven by the US, Brazil, Canada, Russia, Kazakhstan and Norway. Separately, OPEC natural gas liquids (NGLs) and non-conventional liquids are forecast to grow by around 64 tb/d to average 5.5 mb/d this year, followed by a growth of 110 tb/d to average 5.6 mb/d in 2025. OPEC-12 crude oil production in February increased by 203 tb/d, m-o-m, averaging 26.57 mb/d, as reported by available secondary sources.

Product Markets and Refining Operations

In February, refinery margins across all regions strengthened further, as ongoing refinery maintenance limited processing rates and restricted product output, exerting downward pressure on product stocks. The gains were mostly driven by stronger gasoline markets, reflecting reduced products' availability and a positive gasoline market outlook for the coming months. Additionally, gasoil performance improvements in Northwest Europe further supported refining economics, with the products' crack spread facing upward pressure amid declines in refinery runs, which exacerbated the products' balance contraction given ongoing geopolitical tensions. Global refinery intake fell by 958 tb/d, averaging 79.9 mb/d vs. 80.8 mb/d in the previous month, showing a 434 tb/d decline, y-o-y. Refinery intakes are expected to remain under pressure in the coming months amid heavy turnaround works.

Tanker Market

Dirty freight rates recovered further in February on all monitored routes, with the Middle East-to-East route leading gains. On average, VLCC spot freight rates rose 11%, m-o-m. Compared with the same month of 2023, VLCC rates were 18% higher. Suezmax spot freight rates gave up the gains of the previous month dropping 19%, m-o-m, while Aframax rates saw a large decline of 18%, m-o-m, across all routes. Clean tanker spot freight rates saw an increase, with East of Suez rates surging by 18%, m-o-m, as trade disruptions triggered some rebooking. West of Suez rates also jumped by 22%, m-o-m, in February.

Crude and Refined Products Trade

Preliminary data shows that US crude imports averaged 6.5 mb/d in February, marking an increase of over 3%, m-o-m, while US crude exports remained at a relatively healthy level, averaging 4.6 mb/d. China's crude imports averaged 11.2 mb/d in January, representing a decline of 1.8%, m-o-m. India's crude imports in January witnessed a 9.4% increase, m-o-m, reaching 5.1 mb/d supported by seasonal trends. Japan's crude imports in January fell by 8.6%, m-o-m, standing at 2.4 mb/d. Compared to the same month of 2023, crude inflows declined by 10.8%. Crude imports into OECD Europe are expected to fluctuate, with inflows strengthening in December before declining in January and February.

Commercial Stock Movements

Preliminary January 2024 data shows total OECD commercial oil stocks down by 26.8 mb, m-o-m. At 2,735 mb, they were 192 mb below the 2015–2019 average. Within the components, crude and product stocks fell by 10.7 mb and 16.1 mb, m-o-m, respectively. OECD commercial crude stocks stood at 1,318 mb in January, 113 mb lower than the 2015–2019 average. OECD total product stocks in January stood at 1,416 mb, 79 mb below the 2015–2019 average. In terms of days of forward cover, OECD commercial stocks dropped by 0.9 days, m-o-m, in January 2024 to stand at 59.6 days. This is 2.4 days less than the 2015–2019 average.

Balance of Supply and Demand

Demand for OPEC crude in 2024 is projected to stand at about 28.5 mb/d, which is 1.1 mb/d higher than the estimated level for 2023. Demand for OPEC crude in 2025 is expected to reach about 28.8 mb/d, an increase of about 0.3 mb/d over the forecast 2024 level.

Feature Article

Assessment of the global economy

In 2023, global economic growth continued to show a better-than-expected performance towards the end of the year. In the most recently published data, the major economies of the US and India reported strong economic growth in 2H23, and growth in China, Brazil and Russia kept a steady momentum. However, the Eurozone and Japan saw slight growth declines in 2H23. These growth trends are expected to carry over into 1H24, leading to an economic growth forecast in 2024 of 2.8%, y-o-y, which is then set to accelerate further to reach 2.9%, y-o-y, in 2025 (see Graph 1).

The major non-OECD economies of China and India, Graph 1: GDP growth forecast for 2024-25, % change alongside other developing Asian nations, are y-o-y anticipated to maintain their growth momentum and play a significant role in driving global economic growth, while growth across the OECD economies is projected at relatively lower rates. The anticipation of a positive, steady dynamic across major economies is supported by expectations for a continued easing in general inflation throughout 2024 and into 2025. This is expected to result in improving real income levels and, in turn, increased consumer spending ability. Concurrently, key central banks are expected to begin reducing their interest rates in 2024. A shift towards more accommodative monetary policies is anticipated to begin in 2H24 and continue throughout 2025, with the projection that key policy rates will peak in 1H24.

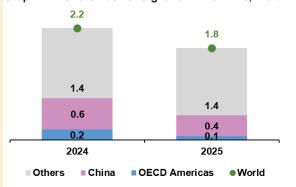
World US Euro-. Japan Brazil Russia India 4.8 China **2024** 2025 Note: 2024-2025 = Forecast. Source: OPEC.

The scope for additional fiscal stimulus measures, beyond those already implemented, is anticipated to be limited, with the possible exception of some Asian economies, particularly China and to some extent India, and possibly Japan. It will also be important to closely monitor the outcomes of elections in several key economies, such as the US, UK, Indonesia, South Africa, Mexico, Russia and India, which have the potential to influence fiscal policies, geopolitical developments and trade, which all impact overall growth dynamics.

Upside potential for global economic growth may arise from a faster than currently anticipated retraction of inflation, enabling major central banks to consider more accommodative monetary policies. Furthermore, the 2024 and 2025 growth trajectories of India, China, as well as the US, could exceed current expectations.

Given this economic backdrop, global oil demand Graph 2: World oil demand growth in 2024-25, mb/d in 2024 is forecast to expand by a robust 2.2 mb/d, y-o-y, followed by 1.8 mb/d, y-o-y, in 2025. On a regional basis, most oil demand growth is expected in non-OECD economies, with an expansion of almost 2 mb/d, y-o-y, in 2024 and 1.7 mb/d, y-o-y, in 2025. OECD oil demand growth is forecast at slightly above 0.2 mb/d, y-o-y, in 2024 and 0.1 mb/d, y-o-y, in 2025 (see Graph 2).

In terms of oil products, transportation fuels are set to drive oil demand growth in both 2024 and 2025. Jet fuel demand is forecast to show the largest y-o-y expansion, as international air traffic continues to recover and reach pre-pandemic levels, supported



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

by strong domestic air travel in all regions. Gasoline requirements are expected to continue to see support from healthy levels of road mobility in major consuming countries and regions, such as China, the Middle East, India and the US. Both on-road diesel, including trucking, and solid industrial, construction and agricultural activities in non-OECD countries are expected to support diesel demand. Petrochemical feedstock growth is poised to be supported by capacity additions, as well as healthy petrochemical margins, mostly in China and the Middle East.

Given the ongoing uncertainties, OPEC and non-OPEC countries participating in the Declaration of Cooperation (DoC) will continue to assess market conditions and take necessary measures at any time, and as needed, in an effort to safeguard market stability for the benefit of producers, consumers and the global economy.

World Oil Demand

The global oil demand growth forecast for 2024 remains unchanged from last month's assessment at 2.2 mb/d, y-o-y. A slight downward adjustment to OECD Asia Pacific in 1Q24 is made due to anticipated lower performances in the manufacturing and petrochemical sectors of Japan and South Korea, which is expected to subdue oil demand in those two countries. However, this is offset by the upward adjustments to India and Other Asia due to anticipated improvements over the same period.

In terms of regions, oil demand in the OECD is forecast to grow by around 0.3 mb/d, y-o-y, led by OECD Americas and further supported by a minor uptick from OECD Europe and Asia Pacific. In the non-OECD, oil demand is forecast to see a healthy growth of 2 mb/d, y-o-y, driven by China and supported by the Middle East, Other Asia, India and Latin America.

Total world oil demand is expected to reach 104.5 mb/d in 2024, supported by strong air travel demand and increased road mobility, including on-road diesel and trucking, as well as healthy industrial, construction and agricultural activities, particularly in non-OECD countries. Similarly, capacity additions and petrochemical margins in non-OECD countries – mostly in China and the Middle East – are expected to contribute to oil demand growth. However, the forecast remains subject to many uncertainties, including global economic developments.

In 2025, global oil demand is expected to see robust growth of 1.8 mb/d, y-o-y. The OECD is expected to grow by 0.1 mb/d, y-o-y, while demand in the non-OECD is forecast to increase by 1.7 mb/d.

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

Table 1 11 Trella ell delliali		,						
					Change 2	024/23		
World oil demand	2023	1Q24	2Q24	3Q24	4Q24	2024	Growth	%
Americas	25.09	24.68	25.38	25.58	25.54	25.30	0.21	0.84
of which US	20.41	20.09	20.67	20.67	20.89	20.58	0.17	0.85
Europe	13.39	13.12	13.57	13.66	13.31	13.42	0.03	0.19
Asia Pacific	7.34	7.80	6.97	7.09	7.54	7.35	0.01	0.16
Total OECD	45.82	45.60	45.93	46.33	46.39	46.06	0.25	0.54
China	16.19	16.13	16.77	17.09	17.29	16.82	0.63	3.89
India	5.34	5.64	5.64	5.40	5.59	5.57	0.22	4.19
Other Asia	9.28	9.64	9.74	9.49	9.51	9.59	0.32	3.42
Latin America	6.69	6.79	6.88	6.97	6.88	6.88	0.19	2.84
Middle East	8.63	8.91	8.76	9.38	9.00	9.01	0.38	4.40
Africa	4.46	4.65	4.37	4.39	4.82	4.56	0.10	2.24
Russia	3.84	3.89	3.80	3.99	4.08	3.94	0.10	2.61
Other Eurasia	1.17	1.27	1.24	1.08	1.28	1.22	0.04	3.77
Other Europe	0.78	0.81	0.78	0.77	0.84	0.80	0.01	1.75
Total Non-OECD	56.39	57.73	57.99	58.55	59.29	58.39	2.00	3.55
Total World	102.21	103.33	103.91	104.88	105.69	104.46	2.25	2.20
Previous Estimate	102.16	103.32	103.91	104.88	105.47	104.40	2.25	2.20
Revision**	0.05	0.01	0.00	0.00	0.21	0.06	0.00	0.00
Noto: * 2024 - Forecast								

Note: * 2024 = Forecast.

Totals may not add up due to independent rounding.

Source: OPEC.

^{**} Although there is no revision in growth of year 2024, y-o-y, it is worth noting that the observed changes in absolute 2024 levels are due to an update to the 2023 baseline.

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

	Change 2025				25/24			
World oil demand	2024	1Q25	2Q25	3Q25	4Q25	2025	Growth	%
Americas	25.30	24.74	25.43	25.70	25.62	25.38	0.08	0.31
of which US	20.58	20.12	20.70	20.73	20.93	20.62	0.04	0.21
Europe	13.42	13.14	13.58	13.68	13.33	13.43	0.02	0.12
Asia Pacific	7.35	7.81	6.98	7.10	7.55	7.36	0.01	0.14
Total OECD	46.06	45.69	46.00	46.49	46.50	46.17	0.11	0.23
China	16.82	16.56	17.15	17.53	17.68	17.23	0.41	2.44
India	5.57	5.86	5.88	5.61	5.82	5.79	0.23	4.10
Other Asia	9.59	9.93	10.07	9.82	9.81	9.91	0.31	3.24
Latin America	6.88	6.99	7.07	7.19	7.07	7.08	0.20	2.90
Middle East	9.01	9.29	9.10	9.84	9.35	9.40	0.38	4.24
Africa	4.56	4.77	4.47	4.52	4.93	4.67	0.11	2.47
Russia	3.94	3.95	3.85	4.05	4.12	3.99	0.05	1.37
Other Eurasia	1.22	1.30	1.27	1.12	1.31	1.25	0.03	2.59
Other Europe	0.80	0.82	0.79	0.78	0.85	0.81	0.01	1.41
Total Non-OECD	58.39	59.46	59.66	60.45	60.95	60.13	1.74	2.98
Total World	104.46	105.15	105.65	106.94	107.44	106.30	1.85	1.77
Previous Estimate	104.40	105.15	105.65	106.94	107.23	106.25	1.85	1.77
Revision**	0.06	0.01	0.00	0.00	0.21	0.06	0.00	0.00

Note: * 2025 = Forecast.

Totals may not add up due to independent rounding.

Source: OPEC.

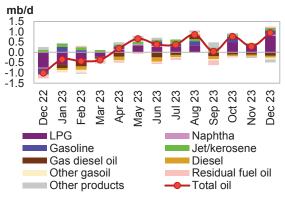
OECD

OECD Americas

Update on the latest developments

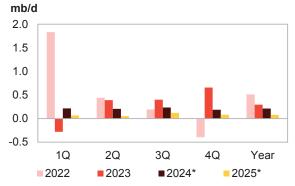
Oil demand in OECD Americas in December surged further by 1 mb/d, y-o-y, up from a growth of 285 tb/d, y-o-y, in November. Incremental oil demand over the month came mostly from the US for the third consecutive month, while Mexico showed growth of 39 tb/d, y-o-y and demand in Canada remained weak, contracting by 86 tb/d, y-o-y. The strong oil demand growth in December, compared with that of November, can also be attributed to the negative baseline from a year earlier, amid strong petrochemical feedstock requirements and healthy transportation fuel demand in the US. Details of various product contributions in the US are discussed below.

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.

Oil demand in the **US** increased by 1 mb/d, y-o-y, in December, up from growth of 496 tb/d, y-o-y, in the previous month. Growth was driven by healthy petrochemical and transportation sector activity amid a weak

^{**} Although there is no revision in growth of year 2025, y-o-y, it is worth noting that the observed changes in 2025 absolute levels are due to an update to the historical baseline.

World Oil Demand

baseline effect. LPG recorded the largest increase of 761 tb/d, y-o-y, up further from the previous month's demand of 394 tb/d, y-o-y, on the back of seasonal strength and a low baseline in the previous year. Gasoline surged by 244 tb/d, y-o-y, up from the slight 18 tb/d, y-o-y, growth seen in the previous month. Gasoline was supported by steady driving activity, according to a report from the US Department of Transportation. Travel on all roads and streets in the US increased by 2.2% for December 2023, as compared with December 2022. Similarly, seasonally adjusted vehicle miles travelled for December 2023 saw a 2.7% rise over December 2022. Healthy air travel activity saw jet/kerosene demand increasing by 94 tb/d, y-o-y, up from 30 tb/d, y-o-y increase seen in the previous month. According to a report from the International Air Travel Association (IATA), US international traffic levels remained robust in December, with international revenue passenger-kilometre (RPKs) increasing by 5.5% over 2019 levels. Similarly, US domestic airline traffic increased by 9.6%, y-o-y, and by 0.4% over December 2019. Demand for residual fuels in the US increased by 51 tb/d, y-o-y, in December, up from an annual decline of 3 tb/d, y-o-y, seen in the previous month. Lastly, demand for naphtha saw an uptick of 25 tb/d, y-o-y, up from a similar increase of 22 tb/d, y-o-y, seen in the previous month.

However, US diesel demand saw a contraction in December due to weak industrial activity for the third consecutive month, declining by 179 tb/d, y-o-y, down from an annual decline of 48 tb/d, y-o-y, seen in the previous month. The 'other products' category softened by 30 tb/d, y-o-y, down from an increase of 83 tb/d, y-o-y, in the previous month.

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

US oil demand			Change	Dec 23/Dec 22
By product	Dec 22	Dec 23	Growth	%
LPG	3.32	4.08	0.76	22.9
Naphtha	0.13	0.16	0.03	18.8
Gasoline	8.60	8.84	0.24	2.8
Jet/kerosene	1.60	1.69	0.09	5.9
Diesel	3.79	3.61	-0.18	-4.7
Fuel oil	0.27	0.32	0.05	18.7
Other products	1.90	1.87	-0.03	-1.6
Total	19.62	20.58	0.97	4.9

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

Sources: EIA and OPEC.

Near-term expectations

In the near term, economic activity in the US is expected to remain healthy amid robust private household consumption in 1H24. Furthermore, improvements in air travel and road mobility are expected to continue. Accordingly, these factors are expected to bolster jet/kerosene and gasoline demand. Healthy petrochemical feedstock requirements for ethylene are also expected to drive LPG demand. Meanwhile, the PMI index level for the services sector, representing around 70% of the US economy, remains in an expansion trajectory, reading 52.6 points in February. However, the US manufacturing sector continued to show a contraction in February. Accordingly, oil demand in the US is projected to increase by an average of about 168 tb/d y-o-y in 1H24, mostly supported by demand for jet/kerosene, gasoline and LPG. However, diesel demand is projected to continue to be subdued by weak manufacturing activity. Overall, US oil demand in 2024 is expected to increase by 173 tb/d, mostly supported by transportation fuels and light distillates.

In **2025**, oil demand in the US is projected to increase by 42 tb/d, y-o-y. While US economic growth is projected to improve over 2024, oil demand in the US is expected to return to its normal growth trend after recovering from losses due to the COVID-19 pandemic. Transportation activity is expected to be solid and support transportation fuel demand to drive oil demand growth. Further, healthy demand for LPG from petrochemical requirements is forecast to continue. However, demand for diesel and naphtha is expected to remain subdued amidst softer manufacturing activity.

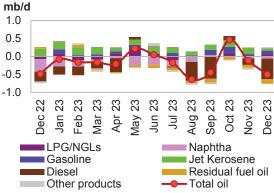
OECD Europe

Update on the latest developments

Oil demand in OECD Europe in December decreased further by 499 tb/d, y-o-y, down from an annual decline of 112 tb/d, y-o-y, in November. Within the region, the largest decline was seen in Germany. In terms of products, declines in oil demand were mostly from diesel and residual fuels. Persistent, negative impacts from substantial declines in industrial production in Germany, Italy and Spain, coupled with a relatively slow dynamic in the services sector, have collectively contributed to the decline in oil demand.

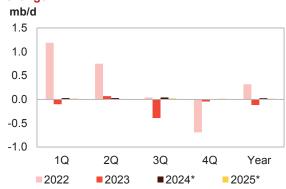
Ongoing weak regional manufacturing activity continued to weigh on diesel demand in the region, leading to a decline of 572 tb/d, y-o-y, from 184 tb/d, y-o-y, seen in the previous month. The ongoing decline in diesel demand was caused by persistent weak manufacturing activity amid macroeconomic headwinds in the region's major countries. Germany posted the largest regional decline in diesel demand in December as manufacturing output dropped by 17.5% m-o-m, from a 2.5% decline seen in November. Demand for residual fuels in OECD Europe also contracted, dropping by 133 tb/d, y-o-y, from a 78 tb/d, y-o-y, decline in November. Similarly, weak margins and low petrochemical steam cracker unit demand subdued naphtha requirements to decline by 56 tb/d, from a 50 tb/d, y-o-y decline seen in the previous month.

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.

On the positive side, OECD Europe gasoline demand posted the largest increase of 97 tb/d, y-o-y, supported by driving activity in the region. Solid demand for air travel in the region bolstered jet/kerosene to grow by 68 tb/d, y-o-y. A report from the IATA's Air Passenger Market Analysis states that, in December, Europe's international RPKs grew by 13.6% y-o-y, surpassing December 2019 RPKs by 0.8% for the first time. Meanwhile, LPG saw growth of 67 tb/d, y-o-y, up from 11 tb/d, y-o-y, seen the previous month. LPG demand was supported by winter heating requirements in the region. Finally, the 'other product' category increased by 30 tb/d, an improvement from a 51 tb/d, y-o-y, decline seen in the previous month.

Near-term expectations

In **2024**, the Eurozone's economic growth is expected to remain in a positive trajectory, albeit relatively sluggish. At the same time, some recent indicators, including manufacturing PMIs and inflation rates, suggest some slight improvements to be seen likely later on in the year. Additionally, the services PMI for the region suggests an improvement to 50.2 in February, while transportation and air travel activity in the region are expected to continue to support regional oil demand. Oil demand growth in the region is expected to average nearly 30 tb/d, y-o-y, in 1H24, supported by regional jet/kerosene and gasoline consumption. However, ongoing weak manufacturing is anticipated to weigh on diesel, while petrochemical activity is expected to show some improvement supporting naphtha demand, albeit remaining at low levels. Overall, the region is expected to see an average growth of 25 tb/d, y-o-y, for the year, mostly supported by transportation fuels. Similarly, LPG and residual fuels are expected to record a slight uptick.

Potential improvements towards the end of 2024 are expected to carry over into **2025**. The Eurozone's economic growth is forecast to gain traction next year and see GDP growth rates above this year's level. Similarly, oil demand growth for OECD Europe is forecast at 17 tb/d, y-o-y, supported by air travel and driving activity. However, an increase in the penetration of electrical vehicles amid ongoing increasing environmental regulations is expected to subdue gasoline and, to a lesser degree, diesel demand. Similarly, the European

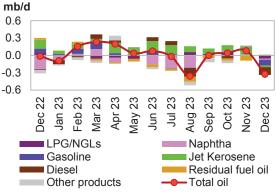
LPG market is poised for major changes in fundamentals, mostly due to high production costs and environmental regulations that could weigh on demand going forward.

OECD Asia Pacific

Update on the latest developments

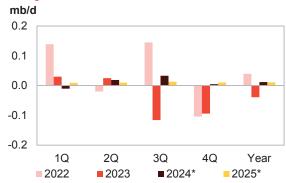
Oil demand in OECD Asia Pacific recorded a large decline of 324 tb/d, y-o-y in December, down from 82 tb/d, y-o-y, growth seen in November. The declines were seen in demand for most oil products in the two largest economies of the region, Japan and South Korea.

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.

In terms of products, the largest decline in the OECD Asia Pacific region was recorded by diesel with 135 tb/d, down from a slight 7 tb/d, y-o-y, growth seen in the previous month. Diesel demand was subdued by weak manufacturing activity in both Japan and South Korea. The manufacturing PMIs in the two countries have been in contraction for more than a year, with the largest contraction in diesel demand recorded in Japan. Gasoline requirements also softened by 98 tb/d, y-o-y, in December, down from a marginal annual decline of 3 tb/d in the previous month. Gasoline demand has been on a negative trajectory in the region for six months. Similarly, jet/kerosene also softened, declining by 31 tb/d, y-o-y, down from growth of 134 tb/d seen in the previous month. A report from the IATA Air Passenger Market Analysis shows that, in December, Asia Pacific carriers saw slightly lower load factors compared to the same month in 2019. At the same time, seasonally adjusted passenger numbers in Japan also decreased on average by 1.3% in December. In terms of petrochemical feedstock, the lacklustre demand in the region subdued LPG requirements to decline by 56 tb/d, y-o-y, and naphtha to soften by 19 tb/d, y-o-y.

On a positive note, residual fuels expanded by 12 tb/d, y-o-y, and the 'other fuels' category saw an uptick of 3 tb/d, y-o-y, albeit a decrease from 19 tb/d seen in the previous month.

Near-term expectations

In **2024**, economic growth rates in the region are expected to remain positive, albeit slightly below rates seen in 2023, with variations among countries. Forward-looking indicators, including services and manufacturing PMIs, also varied among major oil-consuming countries in the region, although most numbers indicate a gradual improvement in both the services and manufacturing sectors. A steady air traffic recovery, along with driving activity and petrochemical industry operations, is anticipated to support oil demand growth, which is projected to increase by 12 tb/d, y-o-y.

In **2025**, GDP growth rates in the region are expected to surpass 2024. In addition, transportation and air travel activity are also expected to support oil demand in OECD Asia Pacific, which is forecast to grow moderately by 11 tb/d, y-o-y, mostly supported by transportation fuels.

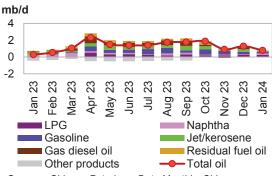
Non-OECD

China

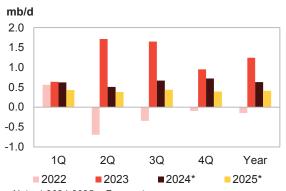
Update on the latest developments

Oil demand in China is estimated to have increased by 788 tb/d, y-o-y, in January, following growth of 1.3 mb/d, y-o-y, in December 2023. Growth was supported by healthy economic activity amid steady petrochemical feedstock requirements.

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.



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

On the back of ongoing strong petrochemical feedstock requirements, LPG posted the highest growth among oil products, increasing by 265 tb/d, y-o-y, in January, slightly below the 280 tb/d, y-o-y, growth observed in the previous month. Naphtha also surged by 176 tb/d, y-o-y, up from the 76 tb/d, y-o-y, growth seen in the previous month. Gasoline demand also increased, rising by 187 tb/d, y-o-y, supported by strong driving mobility. On the back of healthy air travel activity, jet/kerosene requirements expanded by 119 tb/d, y-o-y. Diesel posted growth of 24 tb/d, y-o-y, down from the 206 tb/d, y-o-y, growth seen in the previous month. While the 'other products' category increased by 31 tb/d, y-o-y, residual fuels softened by 12 tb/d, y-o-y, showing a large decline from the 132 tb/d, y-o-y, growth observed in the previous month.

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

Table 4 - 4. Offina 3 off definanta , filb/a				
China's oil demand			Change	Jan 24/Jan 23
By product	Jan 23	Jan 24	Growth	%
LPG	2.46	2.72	0.26	10.8
Naphtha	1.77	1.95	0.18	9.9
Gasoline	3.80	3.99	0.19	4.9
Jet/kerosene	0.86	0.98	0.12	13.8
Diesel	4.11	4.13	0.02	0.6
Fuel oil	0.78	0.77	-0.01	-1.5
Other products	2.05	2.09	0.03	1.5
Total	15.83	16.62	0.79	5.0

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, China is expected to lead global oil demand growth in 2024. On the back of expected solid economic activity amid anticipated healthy manufacturing and driving activity, the country is expected to continue with its ongoing robust and resilient demand for oil products in the near term. February PMI readings indicate that activity in the services and manufacturing sectors continued in expansion territory above 50 points. Furthermore, growing petrochemical capacity in 1H24 is expected to strengthen petrochemical feedstock demand, thus boosting demand for naphtha in the near term. Ongoing Chinese government support measures, primarily targeting the real estate market and household consumption, are also expected to provide additional support for oil demand. Finally, expected warmer temperatures will improve the consumption of

World Oil Demand

diesel in the construction and agricultural sectors. Accordingly, oil demand in the country is anticipated to grow by a healthy 565 tb/d on average, y-o-y, in 1H24.

Overall, in 2024, oil demand is expected to be supported by sustained services sector activity, a recovery in manufacturing activity and surging petrochemical activity fuelled by heightened demand for feedstock. Moreover, international air travel is expected to continue rebounding. Furthermore, increased transportation activity is expected to boost demand for gasoline and diesel. China's oil demand is anticipated to expand by a healthy 630 tb/d, y-o-y, for the year.

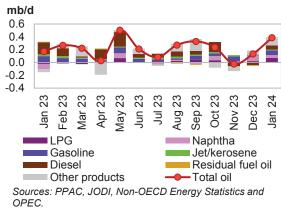
China's product demand is expected to continue to expand in 2025, and the country is expected to remain the global leader in oil demand. The country's stimulus measures are also expected to impact oil demand growth, although likely to a lesser degree than in 2024. China is also projected to lead global petrochemical feedstock demand, while its jet fuel demand is expected to rise on the prospect of further growing air transportation requirements. Finally, manufacturing and construction activity are also projected to accelerate on the back of healthy economic activity. In 2025, the country is expected to post strong oil demand growth of 410 tb/d, V-O-V.

India

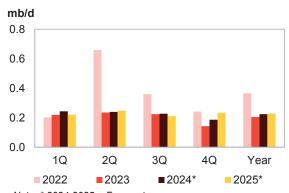
Update on the latest developments

Oil demand in India in January surged by 386 tb/d, y-o-y, up from an increase of 133 tb/d, y-o-y, seen in the previous month. The increase in demand was largely supported by demand for the "other products" category, which includes bitumen used for road construction.

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.

The largest increase in oil demand in January was recorded in the "other products" category, which increased by 128 tb/d. v-o-v, supported by road construction amid dryer weather during the month, which bolstered demand for bitumen. Bitumen consumption during January 2024 grew by 11.6% over January 2023. Gasoline requirements increased by 75 tb/d, y-o-y, supported by heightened mobility levels, specifically as more people returned to work after the holidays. Continued strong vehicle sales, which increased by 15%, y-o-y, in January, also contributed to rising gasoline demand.

In terms of petrochemical feedstock, LPG increased by 72 tb/d, y-o-y, mostly driven by increased heating needs during the winter. Naphtha saw an increase of 42 tb/d, y-o-y, down from the 82 tb/d, y-o-y increase seen in December. Diesel demand increased by 64 tb/d, y-o-y, up from an annual decline of 43 tb/d in the previous month. Diesel is used by different sectors, including the manufacturing and agricultural sectors, and January is typically a guiet period for harvesting activities in India. Similarly, India's industrial output rose more than expected, increasing by 5.2% in January, compared with the same month a year earlier, as strong domestic urban demand boosted manufacturing and supported diesel consumption.

Jet/kerosene increased by 13 tb/d, y-o-y, as domestic airlines during January registered a 4.7%, y-o-y, increase in passenger numbers. However, residual fuels declined by 7 tb/d, y-o-y, albeit showing an improvement from the 10 tb/d, y-o-y, decline in the previous month.

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

India's oil demand			Change	Jan 24/Jan 23
By product	Jan 23	Jan 24	Growth	%
LPG	0.94	1.01	0.07	7.6
Naphtha	0.33	0.37	0.04	12.6
Gasoline	0.78	0.85	0.07	9.6
Jet/kerosene	0.18	0.19	0.01	7.3
Diesel	1.74	1.80	0.06	3.7
Fuel oil	0.13	0.12	-0.01	-5.7
Other products	1.01	1.14	0.13	12.7
Total	5.10	5.49	0.39	7.6

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, the current positive momentum of economic activity in India is expected to continue in 2024. This will be largely driven by robust investment and services amid an expected surge in the manufacturing and construction sectors brought on by government spending and an improved investment environment, which are expected to support India's oil demand in 1H24. Forward-looking indicators show healthy manufacturing and services PMIs and suggest strong prospects for near-term oil demand. Accordingly, India's oil demand is projected to expand by an average of 242 tb/d, y-o-y, in 1H24. Diesel is expected to be the driver of oil demand growth, supported mostly by agriculture, construction and manufacturing activities. Additionally, annual traditional festivities are expected to support transportation activity and boost gasoline demand. Finally, the ongoing air travel recovery is expected to bolster jet/kerosene demand. Overall, India is expected to see healthy oil demand growth of 220 tb/d, y-o-y, in 2024.

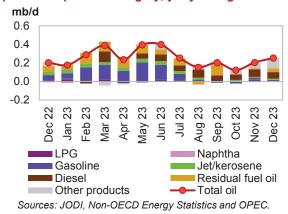
In **2025**, healthy economic growth amid steady manufacturing and business activities in India is expected to bolster oil demand to increase by an average of 228 tb/d. Diesel is expected to continue to be the main driver of demand, followed by the 'other products' category, mostly supported by bitumen. Similarly, demand for transportation fuels and petrochemical feedstock is expected to remain healthy and support oil demand over the year.

Latin America

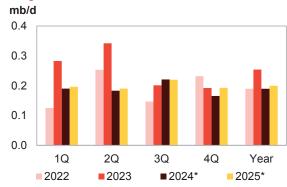
Update on the latest developments

Oil demand in Latin America in December surged further by 252 tb/d, up from 204 tb/d y-o-y in November. Oil demand growth in the region was driven by the 'other products' category and diesel, mostly from Brazil and Venezuela.

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



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



Note: * 2024-2025 = Forecast.

Source: OPEC.

In terms of demand by product, the 'other products' category led demand by 109 tb/d, y-o-y growth in December, up from 61 tb/d seen in the previous month. Furthermore, diesel increased by 70 tb/d, slightly below the 84 tb/d y-o-y increase seen the previous month. Requirements for residual fuels expanded by 42 tb/d, y-o-y, up from a growth of 10 tb/d seen in November. While gasoline expanded by 11 tb/d, y-o-y, jet/kerosene

saw growth of 13 tb/d, y-o-y, slightly above the growth of 10 tb/d recorded a month earlier. In terms of petrochemical feedstock, both LPG and naphtha saw slight upticks of 3 tb/d each.

Near-term expectations

Looking ahead, Latin America's positive economic activity is expected to continue in 1H24, with the ongoing recovery in air travel expected to be steady and combined with continued support from the services and manufacturing sectors, which are expected to boost oil demand. Thus, regional oil demand growth of 187 tb/d, y-o-y, is expected in 1H24. Overall, continued healthy economic activity on the back of improvements in both manufacturing and air travel in 2024 is expected to support oil demand growth of 190 tb/d, y-o-y. The oil demand growth outlook sees demand for transportation fuels expanding the most, followed by petrochemical feedstock.

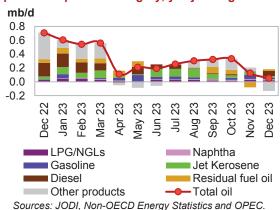
In **2025**, economic activity in the region is expected to remain healthy as GDP growth is projected to improve further from 2024. Furthermore, both transportation and manufacturing activities are expected to support average oil demand growth of 200 tb/d, y-o-y. Transportation fuels, including gasoline, jet/ kerosene and diesel, are expected to drive demand growth, supported by an uptick in demand for residual fuels.

Middle East

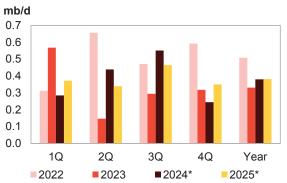
Update on the latest developments

Oil demand growth in the Middle East expanded by 52 tb/d, y-o-y, in December, down from annual growth of 126 tb/d recorded in November. Demand was mostly supported by requirements for transportation fuels amid healthy economic activity, mostly in Iraq.

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.

Diesel led oil demand growth by 75 tb/d, y-o-y, which was up from the marginal 3 tb/d, y-o-y, increase seen in the previous month. Residual fuels, mostly used for electricity generation, increased by 26 tb/d, y-o-y, up from an annual decline of 81 tb/d in November. On the back of increased driving activity, gasoline increased by 20 tb/d, y-o-y, albeit down from the 61 tb/d, y-o-y, growth recorded in November. Jet/kerosene increased by 22 tb/d, y-o-y, supported by the ongoing air travel recovery in the region. According to a report from IATA, Middle Eastern carriers posted positive results in December, as international air traffic reached 96.9% of the level of December 2019 revenue passenger-kilometres (RPKs). In terms of petrochemical requirements, LPG posted growth of 19 tb/d, y-o-y, and naphtha saw growth of 21 tb/d, y-o-y. Finally, the 'other products' category contracted by 132 tb/d, y-o-y, from an annual increase of 57 tb/d, y-o-y, in the previous month.

Table 4 - 6: Irag's oil demand, mb/d

Iraq's oil demand			Change	Jan 24/Jan 23
By product	Jan 23	Jan 24	Growth	%
LPG	0.08	0.07	0.00	-4.2
Naphtha	0.01	0.01	0.00	40.3
Gasoline	0.18	0.19	0.01	3.5
Jet/kerosene	0.07	0.05	-0.02	-27.2
Diesel	0.15	0.16	0.01	9.9
Fuel oil	0.20	0.22	0.03	13.1
Other products	0.22	0.21	-0.01	-2.8
Total	0.90	0.92	0.02	2.2

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

Sources: JODI and OPEC.

Near-term expectations

In the near term, the ongoing economic activity in the region is expected to continue to support oil demand in 1H24. In addition, ongoing strong growth in transportation fuels demand is expected to continue on the back of healthy driving and air travel activity. Moreover, the current focus on petrochemical sector development is expected to bolster petrochemical feedstock requirements in the region. Accordingly, these factors are expected to support overall oil demand growth in the region, which is forecast to expand by an average of a healthy 362 tb/d, y-o-y. Overall in 2024, GDP growth rates in the region are forecast to surpass those of 2023 amid expected healthy transportation activity combined with petrochemical feedstock requirements, supporting transportation fuels and petrochemical feedstock demand. Accordingly, the Middle East is expected to see healthy demand growth of 380 tb/d, y-o-y.

In **2025**, healthy economic activity in the region is projected to continue. In addition, mobility and petrochemical sector requirements are expected to remain steady. These factors should support demand for transportation fuels and other distillates in the region. Accordingly, regional oil demand in 2025 is expected to expand by an average of 382 tb/d, y-o-y.

World Oil Supply

Non-OPEC liquids production in 2024 is forecast to grow by 1.1 mb/d to average 70.5 mb/d, including 50 tb/d in processing gains. This reflects 120 tb/d downward revision, compared with the previous month's assessment, due to the extension of additional voluntary adjustments in 2Q24 by some countries participating in DoC resulted in downward growth revisions this year.

US crude and condensate production remained robust, while NGL output dropped in December last year. Total US liquids output is estimated to have been hit by a blast of severe weather in January, however, a recovery is expected by March. Accordingly, US liquids supply growth for 2024 is estimated at 0.5 mb/d. In addition to the US, the main drivers for expected growth in 2024 are Canada, Brazil and Norway, while the largest declines are seen in Russia and Mexico.

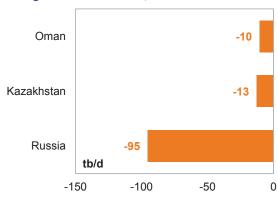
In 2025, non-OPEC liquids production is forecast to grow by 1.4 mb/d to average 71.9 mb/d, including 60 tb/d in processing gains. OECD liquids supply is forecast to increase next year by 0.8 mb/d to average 34.5 mb/d, and the non-OECD region is projected to grow by 0.5 mb/d to average 34.9 mb/d. The main drivers for liquids supply growth are expected to be the US, Brazil, Canada, Russia, Kazakhstan, and Norway, while production is forecast to see a major decline in Mexico and Angola.

OPEC NGLs and non-conventional liquids production is expected to increase by around 60 tb/d to average 5.5 mb/d in 2024 and additional growth of 110 tb/d is forecast for 2025 to average 5.6 mb/d. OPEC-12 crude oil production in February increased by 203 tb/d, m-o-m, to average 26.57 mb/d, according to available secondary sources.

Non-OPEC liquids production in 2023 is estimated to grow by 2.5 mb/d, y-o-y, reaching 69.5 mb/d. Downward revisions to a few countries were more than offset by upward revisions to the estimate for Canada, Brazil and the

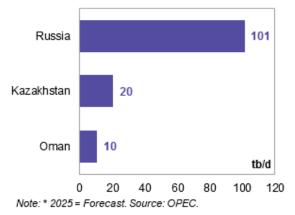
Overall, OECD supply growth for 2023 is revised higher. OECD Europe is revised up due to the UK and OECD Americas is revised up owing to Canada and the US. OECD Asia Pacific's output growth is estimated to remain unchanged. The non-OECD y-o-y supply growth estimate for 2023 is revised up to 0.6 mb/d. Latin America is estimated to be the main growth driver in the non-OECD region, followed by China and Other Eurasia.

The non-OPEC liquids production growth forecast Graph 5 - 1: Major revisions to annual supply in 2024 is revised down slightly from the previous change forecast in 2024*, MOMR Mar 24/Feb 24 month's assessment to 1.1 mb/d. It is worth noting that these adjustments take into account all the recently announced additional voluntary production adjustments by some countries in the Declaration of Cooperation (DoC) in 2Q24 and the rest of 2024.



Note: * 2024 = Forecast. Source: OPEC.

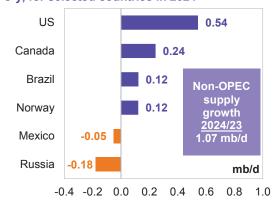
The non-OPEC liquids production growth forecast Graph 5 - 2: Major revisions to annual supply for 2025 is revised up by 0.1 mb/d from the previous change forecast in 2025*, MOMR Mar 24/Feb 24 month's assessment to 1.4 mb/d. This takes into account the adjustments made to base changes in 2024.



Key drivers of growth and decline

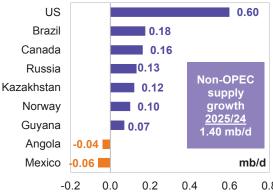
are forecast to be the US, Canada, Brazil and Norway, y-o-y, for selected countries in 2024* while oil production is projected to see the largest decline in Russia and Mexico.

For 2024, the key drivers of non-OPEC supply growth Graph 5 - 3: Annual liquids production changes,



Note: * 2024 = Forecast. Source: OPEC.

The key drivers of growth for non-OPEC supply in Graph 5 - 4: Annual liquids production changes, 2025 are forecast to be the US, Brazil, Canada, y-o-y, for selected countries in 2025* Russia, Kazakhstan, and Norway, while oil production is anticipated to drop primarily in Mexico and Angola.



Note: * 2025 = Forecast. Source: OPEC.

Non-OPEC liquids production in 2024 and 2025

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

Table of Triton of Earliquide pro		,					Change 2	2024/23
Non-OPEC liquids production	2023	1Q24	2Q24	3Q24	4Q24	2024	Growth	%
Americas	28.71	29.07	29.23	29.58	29.89	29.44	0.74	2.57
of which US	20.90	21.03	21.37	21.60	21.78	21.45	0.54	2.60
Europe	3.66	3.79	3.74	3.72	3.88	3.78	0.13	3.48
Asia Pacific	0.44	0.45	0.42	0.43	0.42	0.43	-0.01	-2.91
Total OECD	32.81	33.31	33.40	33.74	34.19	33.66	0.85	2.60
China	4.52	4.60	4.59	4.46	4.46	4.53	0.01	0.24
India	0.77	0.79	0.79	0.79	0.78	0.79	0.01	1.70
Other Asia	2.28	2.31	2.24	2.22	2.22	2.25	-0.03	-1.53
Latin America	6.96	7.30	7.27	7.31	7.37	7.31	0.35	5.05
Middle East	3.27	3.24	3.24	3.27	3.28	3.26	-0.02	-0.54
Africa	2.42	2.43	2.38	2.42	2.45	2.42	0.00	-0.02
Russia	10.93	10.83	10.44	10.85	10.87	10.75	-0.18	-1.65
Other Eurasia	2.93	2.90	2.91	2.99	3.01	2.95	0.02	0.83
Other Europe	0.10	0.10	0.10	0.10	0.10	0.10	0.00	-1.15
Total Non-OECD	34.18	34.49	33.96	34.40	34.53	34.35	0.17	0.48
Total Non-OPEC production	66.99	67.80	67.36	68.14	68.72	68.01	1.02	1.52
Processing gains	2.47	2.52	2.52	2.52	2.52	2.52	0.05	2.03
Total Non-OPEC liquids production	69.46	70.32	69.88	70.66	71.24	70.53	1.07	1.54
Previous estimate	69.36	70.06	70.20	70.68	71.24	70.55	1.19	1.71
Revision**	0.10	0.26	-0.32	-0.03	0.00	-0.02	-0.12	-0.18

Note: * 2024 = Forecast.

Totals may not add up due to independent rounding.

Source: OPEC.

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

							Change 2	2025/24
Non-OPEC liquids production	2024	1Q25	2Q25	3Q25	4Q25	2025	Growth	%
Americas	29.44	29.96	29.86	30.23	30.52	30.15	0.70	2.39
of which US	21.45	21.80	21.95	22.15	22.28	22.05	0.60	2.80
Europe	3.78	3.96	3.84	3.82	3.92	3.88	0.10	2.65
Asia Pacific	0.43	0.43	0.42	0.43	0.43	0.42	-0.01	-1.81
Total OECD	33.66	34.35	34.12	34.48	34.88	34.46	0.79	2.36
China	4.53	4.57	4.55	4.51	4.51	4.53	0.01	0.13
India	0.79	0.78	0.79	0.80	0.80	0.80	0.01	1.00
Other Asia	2.25	2.23	2.19	2.17	2.17	2.19	-0.06	-2.61
Latin America	7.31	7.51	7.54	7.61	7.67	7.58	0.27	3.66
Middle East	3.26	3.28	3.31	3.31	3.31	3.30	0.04	1.37
Africa	2.42	2.44	2.44	2.43	2.43	2.44	0.02	0.70
Russia	10.75	10.89	10.87	10.86	10.89	10.88	0.13	1.23
Other Eurasia	2.95	3.07	3.11	3.05	3.09	3.08	0.13	4.44
Other Europe	0.10	0.10	0.10	0.10	0.10	0.10	0.00	1.97
Total Non-OECD	34.35	34.87	34.91	34.84	34.97	34.90	0.55	1.60
Total Non-OPEC production	68.01	69.22	69.02	69.31	69.84	69.35	1.34	1.98
Processing gains	2.52	2.58	2.58	2.58	2.58	2.58	0.06	2.38
Total Non-OPEC liquids production	70.53	71.80	71.60	71.89	72.42	71.93	1.40	1.99
Previous estimate	70.55	71.69	71.49	71.78	72.31	71.82	1.27	1.80
Revision**	-0.02	0.11	0.11	0.11	0.11	0.11	0.13	0.19

Note: * 2025 = Forecast.

Totals may not add up due to independent rounding.

Source: OPEC.

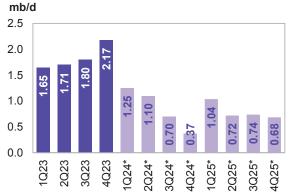
^{**} It should be noted that the growth in 2024 has been revised down by 0.12 mb/d, due to recently announced additional voluntary production adjustments by some countries in the Declaration of Cooperation (DoC) in 2Q24 and the rest of 2024. However, a change in the 2023 baseline leads to an overall change of -0.02 mb/d in the 2024 absolute level.

^{**} Although the growth in 2025 has been revised up by 0.13 mb/d, y-o-y, due to the changes in the DoC countries in 2024, the consequent change in baseline of 2024 leads to an overall change of 0.11 mb/d in the 2025 absolute level.

OECD

OECD liquids production in 2023 is estimated to Graph 5 - 5: OECD quarterly liquids supply, expand by 1.8 mb/d to average 32.8 mb/d. An upward y-o-y changes adjustment was made following revisions to OECD Americas and OECD Europe.

Growth is set to be led by OECD Americas, which is estimated to expand by 1.8 mb/d to average 28.7 mb/d. This is up by about 55 tb/d compared with the previous month's assessment. Yearly liquids production in OECD Europe is estimated to grow by 0.1 mb/d to average 3.7 mb/d. This is revised up by 16 tb/d compared with the previous assessment. OECD Asia Pacific liquids production is estimated to decline by about 33 tb/d, y-o-y, to average 0.4 mb/d.



Note: * 1Q24-4Q25 = Forecast, Source: OPEC

For 2024, OECD liquids production is likely to grow by 0.9 mb/d to average 33.7 mb/d. A minor downward adjustment was made mainly following revisions to Mexico.

Growth will once again be led by OECD Americas, with an expected increase of 0.7 mb/d to an average of 29.4 mb/d. This is down by a minor 6 tb/d compared with the previous month's assessment. Yearly liquids production in OECD Europe is expected to grow by about 0.1 mb/d to average 3.8 mb/d, which is unchanged compared with the previous assessment. OECD Asia Pacific is expected to decline by 14 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 34.5 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 30.1 mb/d. Yearly liquids production in OECD Europe is expected to grow by 0.1 mb/d to average 3.9 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.

OECD Americas

US

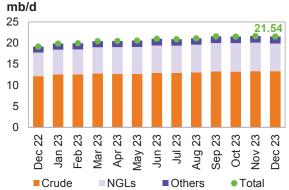
US liquids production in December dropped by about 130 tb/d, m-o-m, to average 21.5 mb/d. This was up by 2.4 mb/d compared with December 2022.

largely unchanged, m-o-m, at an average of component 13.3 mb/d in **December**. This was up by 1.2 mb/d, y-o-y.

In terms of crude and condensate production breakdown by region (PADDs), production decreased on the US Gulf Coast (USGC) by about 6 tb/d to average 9.6 mb/d. Output in the Rocky Mountains showed a rise of 12 tb/d, m-o-m. Production in the Midwest and West Coast regions remained broadly unchanged. While output on the East Coast dropped by 8 tb/d, m-o-m.

A drop in production in the main regions was primarily driven by lower output in Texas and the offshore Gulf of Mexico (GoM) producing wells, while output in main producing basins in New Mexico and Colorado increased.

Crude oil and condensate production remained Graph 5 - 6: US monthly liquids output by key



Sources: EIA and OPEC.

NGL production fell by 0.2 mb/d, m-o-m, to average 6.6 mb/d in December. This was 1.0 mb/d higher, y-o-y. According to the US Department of Energy (DoE), the production of non-conventional liquids (mainly ethanol) rose by 67 tb/d, m-o-m, to average 1.7 mb/d. Preliminary estimates show non-conventional liquids averaging about 1.6 mb/d in January, down by 0.1 mb/d, m-o-m.

GoM production dropped by 10 tb/d, m-o-m, to average 1.9 mb/d in December, following the continuation of oil spill outages, but was still supported by new project ramp-ups. In the onshore Lower 48, crude and condensate production remained broadly unchanged, m-o-m, at an average of 11.0 mb/d in December.

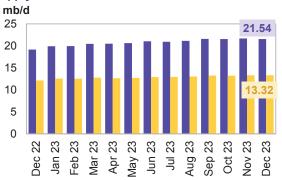
Table 5 - 3: US crude oil production by selected state and region, tb/d

				Cha	nge
State	Dec 22	Nov 23	Dec 23	m-o-m	у-о-у
Texas	5,195	5,657	5,637	-20	442
New Mexico	1,773	1,905	1,928	23	155
Gulf of Mexico (GOM)	1,788	1,872	1,862	-10	74
North Dakota	950	1,290	1,285	-5	335
Colorado	413	476	483	7	70
Alaska	447	428	433	5	-14
Oklahoma	414	421	419	-2	5
Total	12,138	13,319	13,315	-4	1,177

Sources: FIA and OPEC

Looking at individual US states, New Mexico's oil production rose by 23 tb/d to average 1.9 mb/d, which is 155 tb/d higher than a year ago. Production from Texas was down by 20 tb/d to an average of 5.6 mb/d, which is 442 tb/d higher than a year ago. In the Midwest, North Dakota's production fell by 5 tb/d, m-o-m, to average 1.3 mb/d, up 335 tb/d, y-o-y, while Oklahoma's production remained largely unchanged, averaging 0.4 mb/d, m-o-m. Production in Colorado rose by 7 tb/d, m-o-m, while output in Alaska remained mostly unchanged.

Graph 5 - 7: US monthly crude oil and total liquids supply



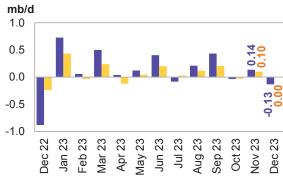
■US total liquids production ■US crude oil production Sources: EIA and OPEC.

US tight crude output in December is estimated to Graph 5 - 9: US tight crude output breakdown have fallen by 24 tb/d, m-o-m, to average 8.4 mb/d, according to the latest estimates by the US Energy Information Administration (EIA). This was 0.5 mb/d higher than the same month last year.

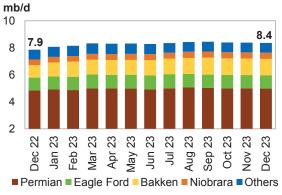
The m-o-m increase from shale and tight formations using horizontal wells came mainly from Permian shale production in Texas and New Mexico, where output dropped by 18 tb/d for an average of 5.0 mb/d. This was up by 136 tb/d, y-o-y.

In North Dakota, Bakken shale oil output remained largely unchanged, m-o-m, averaging 1.2 mb/d, up by 286 tb/d, y-o-y. Tight crude output at Eagle Ford in Texas dropped by a minor 3 tb/d to average 1.0 mb/d, up by 42 tb/d, y-o-y. Production at Niobrara-Codell in Colorado and Wyoming was unchanged at an average of 457 tb/d.

Graph 5 - 8: US monthly crude oil and total liquids supply, m-o-m changes



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

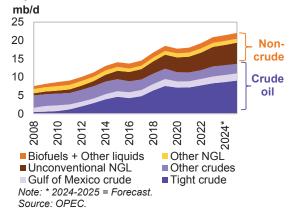


Sources: EIA and OPEC.

US liquids production in 2023, excluding processing Graph 5 - 10: US liquids supply developments by gains, is estimated to expand by 1.6 mb/d, y-o-y, to component average 20.9 mb/d. Crude oil and condensate output is estimated to increase by 1.0 mb/d, y-o-y, to average 12.9 mb/d. Average tight crude output in 2023 is estimated at 8.3 mb/d, up by 0.5 mb/d, y-o-y.

At the same time, NGL production and nonconventional liquids, particularly ethanol, are estimated to increase by 0.5 mb/d and 0.1 mb/d, y-o-y, to average 6.4 mb/d and 1.5 mb/d, respectively.

US liquids production in **2024**, excluding processing gains, is expected to grow by 0.5 mb/d, y-o-y, to average 21.4 mb/d. This is unchanged from the previous assessment. The forecast assumes a modest level of drilling activity and fewer supply chain/logistical issues at the prolific Permian, Bakken and Eagle Ford shale sites this year.



Crude oil and condensate output in 2024 is expected to jump by 0.3 mb/d, y-o-y, to average 13.2 mb/d. At the same time, NGL 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 8.7 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 amid moderate drilling activity increases.

US liquids production, excluding processing gains, is expected to grow by 0.6 mb/d, y-o-y, to average 22.0 mb/d in 2025, assuming a mild increase in drilling activity, lower service cost inflation and well productivity improvements in key shale basins. Crude oil and condensate output is expected to jump by 0.4 mb/d, y-o-y, to average 13.6 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, and average 6.8 mb/d and 1.6 mb/d, respectively. Average tight crude output in 2025 is expected to reach 9.1 mb/d, up by 0.4 mb/d, y-o-y. The 2025 forecast assumes ongoing capital discipline and less inflationary pressure in the US upstream

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

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		Change		Change		Change			
US liquids	2023	2023/22	2024*	2024/23	2025*	2025/24			
Tight crude	8.31	0.54	8.67	0.36	9.07	0.40			
Gulf of Mexico crude	1.87	0.14	1.90	0.03	1.97	0.07			
Conventional crude oil	2.75	0.34	2.66	-0.09	2.57	-0.09			
Total crude	12.93	1.02	13.24	0.31	13.62	0.38			
Unconventional NGLs	5.31	0.53	5.55	0.24	5.77	0.22			
Conventional NGLs	1.12	-0.03	1.09	-0.03	1.07	-0.02			
Total NGLs	6.43	0.50	6.64	0.21	6.84	0.20			
Biofuels + Other liquids	1.54	0.10	1.57	0.03	1.59	0.02			
US total supply	20.90	1.62	21.45	0.54	22.05	0.60			

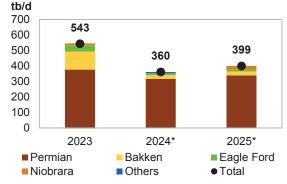
Note: * 2024-2025 = Forecast.

Sources: EIA, OPEC and Rystad Energy.

US tight crude production in the Permian during 2023 is estimated to increase by 0.4 mb/d, y-o-y, to average 5.0 mb/d. In 2024, it is forecast to grow by 0.3 mb/d, y-o-y, to average 5.3 mb/d, while growth of 0.3 mb/d is expected for 2025.

In North Dakota, Bakken shale production is still Graph 5 - 11: US tight crude output by shale play, expected to remain below the pre-pandemic average y-o-y changes of 1.4 mb/d. In 2023, growth is estimated at 0.1 mb/d, to average 1.1 mb/d. Growth of just 23 tb/d and 25 tb/d is expected for 2024 and 2025, respectively, for an average of 1.2 mb/d over both years, demonstrating maturity in the basin.

The Eagle Ford in Texas saw an output of 1.2 mb/d in 2019, followed by declines from 2020 to 2021 and no growth in 2022. With an estimated growth of about 41 tb/d for 2023, output rests at an average of 1.0 mb/d. At the same time, minor growth of 10 tb/d and 15 tb/d is expected for 2024 and 2025. respectively.



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

Niobrara's production is estimated to rise by around 12 tb/d, y-o-y, in 2023, to an average of 446 tb/d. With no meaningful expected growth for 2024, output is forecast to rise by 20 tb/d in 2025. In the remaining tight plays, production is estimated to stay steady in 2023, y-o-y, and with a modest pace in drilling and completion activities, an increase of 8 tb/d is expected in 2024, before stabilizing in 2025.

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	4.98	0.38	5.30	0.32	5.63	0.34
Bakken shale	1.15	0.12	1.17	0.02	1.19	0.03
Eagle Ford shale	1.00	0.04	1.02	0.01	1.03	0.02
Niobrara shale	0.45	0.01	0.45	0.00	0.47	0.02
Other tight plays	0.74	0.00	0.75	0.01	0.75	0.00
Total	8.31	0.54	8.67	0.36	9.07	0.40

Note: * 2024-2025 = Forecast.

Source: OPEC.

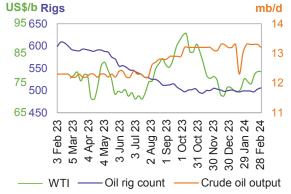
US rig count, spudded, completed, DUC wells and fracking activity

The total number of active US drilling rigs in the week ending 3 March 2024 rose by three to 629, according to Baker Hughes, 120 fewer rigs than a year ago. The number of active offshore rigs rose by one, w-o-w, to 21. This is five more than in the same month a year earlier. The number of onshore oil and gas rigs increased by two, w-o-w, to stand at 608, with no rigs added in inland waters. This is down by 124 rigs, y-o-y.

The US horizontal rig count rose by one, Graph 5 - 12: US weekly rig count vs. US crude oil w-o-w, to 561, compared with 690 horizontal rigs a output and WTI price year ago. The number of drilling rigs for oil increased by three, w-o-w, to 506, while the number of gasdrilling rigs fell by one, w-o-w, to 119.

The Permian's rig count rose by one, w-o-w, to 315. Rig counts remained unchanged in Williston, Eagle Ford and Niobrara at 34, 52 and 12, respectively. Meanwhile, the number of rigs rose by one, w-o-w, in Cana Woodford to 22.

No operating oil rig has been reported in the Barnett Basin since 19 January.



Sources: Baker Hughes, EIA and OPEC.

spudded, completed and started oil-producing wells in in US shale plays all US shale plays included 888 horizontal wells US\$/b Rigs spudded in January (as per preliminary data), based on EIA-DPR regions. This is up by 84, m-o-m, and 2% higher than in January 2023.

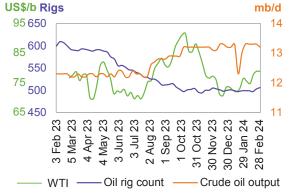
Preliminary data for January indicates a lower number of completed wells at 893, but up by 7%, y-o-y. The number of started wells is estimated at 834, which is 18% higher than a year earlier.

Preliminary data for February 2024 saw 861 spudded, 794 completed and 755 started wells, according to Rystad Energy.

In terms of identified US oil and gas fracking **operations** by region, Rystad Energy reported that 931 wells were fracked in December 2023. In January and February, it stated that 978 and 727 wells began fracking, respectively, according to preliminary numbers based on the analysis of high-frequency satellite data.

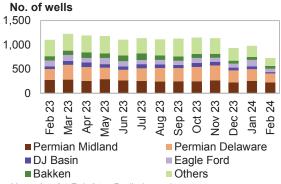
In regional terms, preliminary January data shows that 257 and 239 wells were fracked in the Permian Midland and Permian Delaware regions, respectively. There was an increase of 32 wells in the Midland region and a drop of 8 in Delaware compared with December 2023. Data also indicates that 63 wells were fracked in the DJ Basin, 130 in Eagle Ford and 62 in Bakken during January.

Drilling and completion (D&C) activities for Graph 5 - 13: Spudded, completed and started wells



Sources: Baker Hughes, EIA and OPEC.

Graph 5 - 14: Fracked wells count per month



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

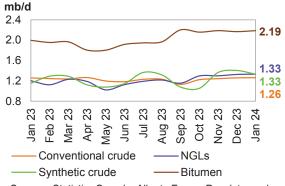
Canada

estimated to have dropped by 0.1 mb/d, m-o-m, to development by type average 6.1 mb/d. However, it was higher than mb/d previous expectations.

Conventional crude production remained unchanged, m-o-m, in January at an average of 1.3 mb/d. NGL output was up by a minor 5 tb/d, m-o-m, averaging 1.3 mb/d.

Crude bitumen production output rose in January by 19 tb/d, m-o-m, while synthetic crude decreased by 74 tb/d, m-o-m. Taken together, crude bitumen and synthetic crude production fell by 55 tb/d to 3.5 mb/d.

Canada's liquids production in January is Graph 5 - 15: Canada's monthly liquids production



Sources: Statistics Canada, Alberta Energy Regulator and OPEC.

For 2024, Canada's liquids production is forecast to increase at a much faster pace compared with 2023, rising by 0.2 mb/d to an average of 5.9 mb/d. Incremental production is expected to come through oil sands project ramp-ups and the expansion at existing facilities in areas like Montney, Kearl and Fort Hills, in addition to some conventional field growth.

0.2 mb/d to average 6.1 mb/d in 2025. Additional and forecast production is expected to come through oil sands project expansion and some conventional field growth. Sources of production are primarily expected from Athabasca, Syncrude Mildred Lake, Kearl, Horizon, Christina Lake, Suncor and Foster Creek oil 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 Montney Play.

Canada's liquids production is forecast to grow by Graph 5 - 16: Canada's quarterly liquids production

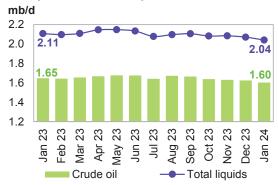


Note: * 1Q24-4Q25 = Forecast. Source: OPEC.

Mexico

Mexico's crude output dropped by 23 tb/d, m-o-m. Graph 5 - 17: Mexico's monthly liquids and in January to average 1.6 mb/d, while NGLs output crude production development fell by just 7 tb/d. Mexico's total January liquids output mb/d dropped by 30 tb/d, m-o-m, to average 2.0 mb/d, according to the Comisión Nacional de Hidrocarburos (CNH).

For 2024, liquids production is forecast to decline by 50 tb/d to average 2.1 mb/d, largely unchanged from the previous assessment. In general, declines from mature fields are expected to offset any gains from new projects. Pemex's total crude production decline in mature areas like Ku-Maloob-Zaap Integral Yaxche-Xanab is forecast to outweigh production ramp-ups in Area-1 and El Golpe-Puerto Ceiba, and from a few start-ups, namely TM-01, Paki and AE-0150-Uchukil.



Sources: Mexico Comision Nacional de Hidrocarburos (CNH) and OPEC

Mexico's liquids production is forecast to drop by 60 tb/d to average 2.0 mb/d in 2025. Production ramp-ups in projects like Mezcalapa, Amoca-Yaxche, Okom, Tucoo-Xaxamani and Amoca-Mizton-Tecoalli are expected to be more than offset by declines in several fields such as Quesqui and Tupilco Profundo. Meanwhile, output in the Ku-Maloob-Zaap asset is expected to remain stable.

OECD Europe

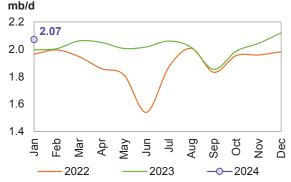
Norway

Norwegian liquids production in January dropped by 49 tb/d, m-o-m, to average 2.1 mb/d. Norway's crude production increased by 40 tb/d, m-o-m, in January to average 1.8 mb/d, very close to the historical highs, and up by 65 tb/d, y-o-y. Monthly oil production was 1.9% higher than the Norwegian Offshore Directorate's (NOD's) forecast.

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

For 2024, Norwegian liquids production is forecast to Graph 5 - 18: Norway's monthly liquids production grow by 0.1 tb/d to average 2.1 mb/d. This is development unchanged from the previous assessment. Several projects are scheduled to ramp up this year. At the same time, start-ups are expected at the Balder/Ringhorne, Eldfisk, Kristin, Alvheim FPSO, Hanz, Skarv Aasgard FPSO and PL636 offshore projects. Johan Castberg is projected to be the main source of output increases this year, with the first oil planned in 4Q24.

Norwegian liquids production is forecast to grow by 100 tb/d to average 2.2 mb/d in 2025. Several smallto-large scale projects are scheduled to ramp up in 2025, such as Johan Castberg, Kristin, Eldfisk and



Sources: The Norwegian Petroleum Directorate (NPD) and OPFC

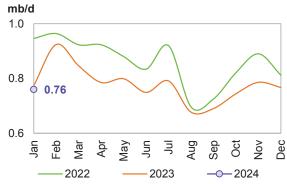
Balder/Ringhorne. At the same time, start-ups are expected at the Ormen Lange, Snohvit, Halten East, Tyrving, Eirin, Norne FPSO, Maria and Verdande projects.

UK

In January, UK liquids production fell by a minor 7 tb/d, m-o-m, to average 0.8 mb/d. Crude oil output decreased by 8 tb/d, m-o-m, to average 0.6 mb/d, lower by 24 tb/d, y-o-y, according to official data. NGL output remained largely unchanged, averaging 69 tb/d.

For 2024, UK liquids production is forecast to remain Graph 5 - 19: UK monthly liquids production unchanged at an average of 0.8 mb/d. Production development ramp-ups will 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 is expected to be towed out to the UK North Sea field in 1H24.

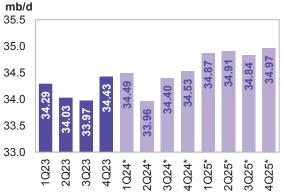
UK liquids production is forecast to stay steady at an average of 0.8 mb/d in 2025. Production ramp-ups will be seen at the Clair sites and Schiehallion. Meanwhile, project start-ups are expected at the Alwyn, Laggan-Tormore, Murlach (Skua redevelopment) and Janice's assets. However, decline rates from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



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

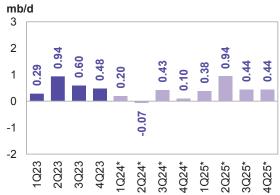
Non-OECD

Graph 5 - 20: Non-OECD quarterly liquids production and forecast



Note: * 1Q24-4Q25 = Forecast, Source: OPEC.

Graph 5 - 21: Non-OECD quarterly liquids supply, y-o-y changes



Note: * 1Q24-4Q25 = Forecast, Source: OPEC.

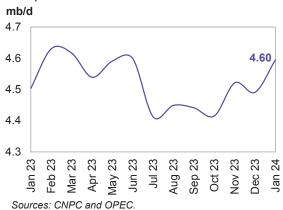
China

China's liquids production rose by 0.1 mb/d, m-o-m, to average 4.6 mb/d in January. This is up by 92 tb/d, y-o-y, according to official data. Crude oil output in December averaged 4.3 mb/d, up by 113 tb/d compared with the previous month, and higher by 101 tb/d, y-o-y. Conversely, NGL and condensate production dropped by 8 tb/d, m-o-m, averaging 40 tb/d.

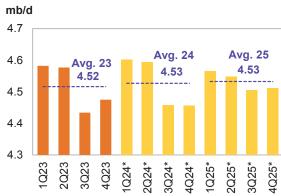
For **2024**, Chinese liquids production is expected to rise by about 10 tb/d, y-o-y, and is forecast to average 4.5 mb/d. This is largely unchanged from the previous assessment. Natural decline rates are expected to be offset by additional growth through more infill wells and EOR projects. For this year, Lingshui 17-2, Lufeng, Liuhua 11-1, Xi'nan, Bozhong 19-2 Oilfield Development, Shayan and Liuhua 4-1 (redevelopment), operated by CNOOC, PetroChina and Sinopec, are planned to come on stream. At the same time, key ramp-ups are expected from Changqing, Kenli 10-2, Wushi 17-2 and Kenli 6-4.

Chinese liquids production is expected to remain steady, y-o-y, and is forecast to average 4.5 mb/d in **2025**. 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, operated by CNOOC and Sinopec, are planned to come on stream. At the same time, key ramp-ups are expected from Changqing, Tarim, Xibei, Peng Lai 19-9 and Xi'nan.

Graph 5 - 22: China's monthly liquids production development



Graph 5 - 23: China's quarterly liquids production and forecast



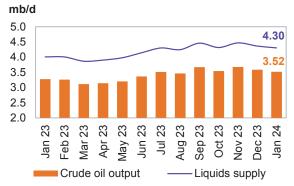
Note: * 1Q24-4Q25 = Forecast. Sources: CNPC and OPEC.

Latin America

Brazil

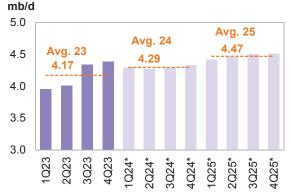
Brazil's crude output in **January** fell by 66 tb/d, m-o-m, to average 3.5 mb/d. NGL production, however, remained largely unchanged at an average of around 80 tb/d and is expected to remain flat in February 2024. Biofuel output (mainly ethanol) remained mostly unchanged at an average of 0.7 mb/d, with preliminary data showing a stable trend in February 2024. The country's total liquids production decreased by 60 tb/d in January to average 4.3 mb/d, but was higher by 0.3 mb/d, y-o-y.

Graph 5 - 24: Brazil's monthly liquids production development by type



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

Graph 5 - 25: Brazil's quarterly liquids production



Note: * 1Q24-4Q25 = Forecast. Sources: ANP and OPEC.

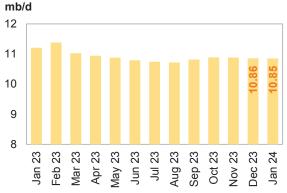
For **2024**, Brazil's liquids supply, including biofuels, is forecast to increase by about 120 tb/d, y-o-y, to average 4.3 mb/d. Crude oil output is expected to increase through production ramp-ups in the Buzios (Franco), Mero (Libra NW), Tupi (Lula) and Itapu (Florim) fields. Oil project start-ups are expected at the Buzios, Atlanta, Pampo-Enchova Cluster and Vida sites. However, increasing costs in the offshore market and inflation might continue to delay projects and could temper growth in the short term.

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.

Russia

Russia's liquids production in January is estimated to remain steady, m-o-m, to average 10.9 mb/d. This includes 9.5 mb/d of crude oil and 1.4 mb/d of NGLs and condensate.

Graph 5 - 26: Russia's monthly liquids production



Graph 5 - 27: Russia's quarterly liquids production



Note: * 1Q24-4Q25 = Forecast. Sources: Nefte Compass and OPEC.

Sources: Nefte Compass and OPEC.

For **2024**, Russian liquids production is forecast to drop by about 0.2 mb/d compared with the previous year, averaging 10.7 mb/d. It is worth noting that this takes into account all the voluntary announced crude oil production adjustments to the end of 2024 including the statement on 3 March 2024. In addition to project ramp-ups at several oil fields, there will be start-ups by Rosneft, Russneft, Lukoil, Gazprom, Neftisa and TenderResurs. However, overall additional liquids production is expected to be offset by declines at mature fields.

Russian liquids production is forecast to increase by 0.1 mb/d compared with the previous year, averaging 10.9 mb/d in **2025**. In addition to project ramp-ups at several oil fields, there will be start-ups by Lukoil, Russneft, Sheshmaoil, Gazprom, Rosneft and Sintek-Oil.

Caspian

Kazakhstan & Azerbaijan

Liquids output in Kazakhstan remained largely unchanged, m-o-m, at an average of 2.0 mb/d in **January**. Crude production was up by 15 tb/d, m-o-m, to average 1.6 mb/d. NGL and condensate output decreased by 10 tb/d, m-o-m, to an average of 0.4 mb/d.

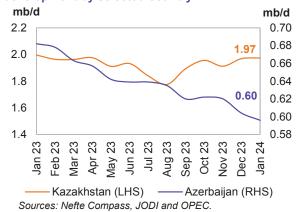
For **2024**, the liquids supply is forecast to increase by about 10 tb/d to average 1.9 mb/d, revised down by 13 tb/d compared with the previous assessment, as the higher-than-expected output in January was offset by the voluntary adjustment implication in 2Q24. Oil production in the Kashagan field and gas condensate output in the Karachaganak field are expected to rise marginally.

Kazakhstan's liquids supply is forecast to rise by 0.1 tb/d to average 2.1 mb/d in **2025**. Growth is expected mainly from production ramp-ups in the Tengiz oil field, given the expansion at the Tengizchevroil Future Growth Project (FGP) and the Wellhead Pressure Management Project in 1Q25.

Azerbaijan's liquids production in January fell by Graph 5 - 28: Caspian monthly liquids production 8 tb/d, m-o-m, averaging 0.6 mb/d, which is a drop of development by selected country 86 tb/d, y-o-y. Crude production averaged 474 tb/d, with NGL output at 122 tb/d, according to official sources.

Azerbaijan's liquids supply for 2024 is forecast to rise by about 15 tb/d to an average of 0.7 mb/d. Growth is forecast to come partly from the Shah Deniz, Absheron and Umid-Babek gas condensate projects. Production in Azerbaijan's ACG oil fields should also get a boost this year due to a seventh ACG platform.

Liquids supply in Azerbaijan is forecast to increase slightly by about 10 tb/d to average 0.7 mb/d in 2025. Production increases in several projects like ACG and Umid-Babek are expected to largely offset declines from other mature fields.

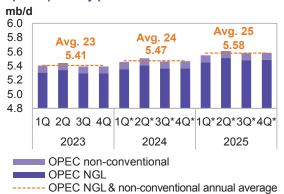


OPEC NGLs and non-conventional oils

OPEC NGLs and non-conventional liquids are Graph 5 - 29: OPEC NGLs and non-conventional estimated to expand by about 65 tb/d in 2024 to liquids quarterly production and forecast average 5.5 mb/d. NGL production is projected to grow by 60 tb/d to average 5.4 mb/d, while non-conventional liquids are forecast to remain unchanged at 0.1 mb/d.

Preliminary data shows NGL output in 1Q24 averaging 5.3 mb/d, while non-conventional output is estimated to remain steady at 0.1 mb/d. Taken together, 5.4 mb/d is estimated for January, according to preliminary data.

The primary 2025 forecast points toward a combined growth of 110 tb/d for an average of 5.6 mb/d. NGL production is projected to grow by 110 tb/d to average 5.5 mb/d, while non-conventional liquids are projected to remain unchanged at 0.1 mb/d.



Note: * 1Q24-4Q25 = Forecast. Source: OPEC.

Table 5 - 6: OPEC NGLs + non-conventional oils, mb/d

			· · · · · · · · · · · · · · · · · · ·	-						
OPEC NGL and	(Change	(Change					(Change
non-coventional oils	2023	23/22	2024	24/23	1Q25	2Q25	3Q25	4Q25	2025	25/24
OPEC NGL	5.31	0.05	5.37	0.06	5.45	5.51	5.48	5.48	5.48	0.11
OPEC non-conventional	0.10	0.00	0.10	0.00	0.10	0.10	0.10	0.10	0.10	0.00
Total	5.41	0.05	5.47	0.06	5.55	5.61	5.58	5.58	5.58	0.11

Note: 2024-2025 = Forecast.

Source: OPFC

OPEC crude oil production

According to secondary sources, total **OPEC-12 crude oil production** averaged 26.57 mb/d in February 2024, 203 tb/d higher, m-o-m. Crude oil output increased mainly in Libya and Nigeria, while production in IR Iran and Iraq decreased.

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

Secondary									Change
sources	2022	2023	2Q23	3Q23	4Q23	Dec 23	Jan 24	Feb 24	Feb/Jan
Algeria	1,018	976	979	952	961	957	911	918	6
Congo	261	260	264	259	250	241	244	251	7
Equatorial Guinea	84	56	59	59	52	52	55	51	-4
Gabon	194	203	203	202	216	219	205	205	0
IR Iran	2,554	2,859	2,698	3,005	3,154	3,172	3,163	3,148	-15
Iraq	4,439	4,275	4,135	4,289	4,305	4,292	4,217	4,203	-14
Kuwait	2,704	2,595	2,585	2,560	2,552	2,543	2,429	2,421	-8
Libya	981	1,164	1,168	1,160	1,171	1,177	1,023	1,167	144
Nigeria	1,210	1,314	1,242	1,279	1,381	1,414	1,429	1,476	47
Saudi Arabia	10,531	9,609	10,151	8,993	8,955	8,937	8,962	8,980	18
UAE	3,066	2,950	2,941	2,912	2,907	2,896	2,926	2,933	7
Venezuela	684	749	755	767	774	782	804	820	16
Total OPEC	27,726	27,012	27,181	26,437	26,679	26,681	26,368	26,571	203

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

Source: OPEC.

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

									Change
Direct communication	2022	2023	2Q23	3Q23	4Q23	Dec 23	Jan 24	Feb 24	Feb/Jan
Algeria	1,020	973	971	951	958	954	907	906	-1
Congo	262	271	280	269	259	260	258	245	-13
Equatorial Guinea	81	55	59	58	53	52	52	47	-5
Gabon	191		203						
IR Iran									
Iraq	4,453	4,117	3,959	4,101	4,123	4,086	3,979	3,992	13
Kuwait	2,707	2,590	2,590	2,548	2,548	2,548	2,413	2,413	0
Libya		1,189	1,181	1,187	1,191	1,179	1,040	1,173	133
Nigeria	1,138	1,234	1,144	1,201	1,313	1,335	1,427	1,322	-104
Saudi Arabia	10,591	9,606	10,124	8,969	8,901	8,944	8,956	9,011	55
UAE	3,064	2,944	2,941	2,904	2,892	2,891	2,925	2,914	-11
Venezuela	716	783	808	797	796	802	841	877	36
Total OPEC									

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

Source: OPEC.

Commercial Stock Movements

Preliminary January 2024 data shows total OECD commercial oil stocks down by 26.8 mb, m-o-m. At 2,735 mb, they were 94 mb lower than the same time one year ago, 132 mb lower than the latest five-year average and 192 mb below the 2015–2019 average. Within the components, crude and product stocks fell by 10.7 mb and 16.1 mb, m-o-m, respectively.

OECD commercial crude stocks stood at 1,318 mb in January. This was 62 mb lower than the same time a year ago, 53 mb below the latest five-year average and 113 mb lower than the 2015–2019 average.

OECD total product stocks fell by 16.1 mb in January to stand at 1,416 mb. This is 32 mb below the same time a year ago, 80 mb lower than the latest five-year average and 79 mb below the 2015–2019 average.

In terms of days of forward cover, OECD commercial stocks dropped by 0.9 days, m-o-m, in January to stand at 59.6 days. This is 2.4 days lower than in January 2023, 4.7 days lower than the latest five-year average and 2.4 days less than the 2015–2019 average.

Preliminary data for February 2024 shows that total US commercial oil stocks fell by 4.2 mb, m-o-m, to stand at 1,223 mb. This is 43.9 mb, or 3.5%, lower than the same month in 2023 and 30.5 mb, or 2.4%, below the latest five-year average. Crude stocks rose by 21.1 mb, while product stocks fell by 25.3 mb, m-o-m.

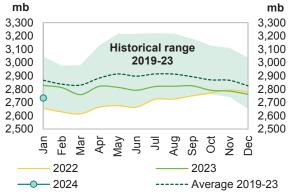
OECD

Preliminary January 2024 data shows total OECD Graph 9 - 1: OECD commercial oil stocks commercial oil stocks down by 26.8 mb, m-o-m. At 2,735 mb, they were 94 mb lower than the same time one year ago, 132 mb lower than the latest five-year average and 192 mb below the 2015–2019 average.

Within the components, crude and product stocks fell by 10.7 mb and 16.1 mb, m-o-m, respectively.

Total commercial oil stocks in January fell in all three OECD regions.

OECD commercial crude stocks stood at 1,318 mb in January. This was 62 mb lower than the same time a year ago, 53 mb below the latest five-year average, and 113 mb lower than the 2015–2019 average.



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

Within the OECD regions, OECD Europe and OECD Asia Pacific saw crude stock draws of 6.6 mb and 5.1 mb, m-o-m, respectively, while crude stocks in OECD America rose by 1.0 mb.

OECD total product stocks fell by 16.1 mb in January to stand at 1,416 mb. This is 32 mb below the same time a year ago, 80 mb lower than the latest five-year average and 79 mb below the 2015–2019 average.

Within the OECD regions, product stocks in OECD Americas witnessed draws of 18.5 mb, m-o-m, while OECD Europe and OECD Asia-Pacific product stocks rose by 1.5 mb and 0.8 mb, respectively.

Table 9 - 1: OECD commercial stocks, mb

					Change
OECD stocks	Jan 23	Nov 23	Dec 23	Jan 24	Jan 24/Dec 23
Crude oil	1,380	1,355	1,329	1,318	-10.7
Products	1,449	1,430	1,433	1,416	-16.1
Total	2,828	2,786	2,761	2,735	-26.8
Days of forward cover	62.0	61.1	60.6	59.6	-0.9

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 dropped by 0.9 days, m-o-m, in January to stand at 59.6 days. This is 2.4 days lower than the level registered in January 2023, 4.7 days lower than the latest five-year average and 2.4 days less than the 2015–2019 average.

Within the OECD regions, OECD Americas stood at 3.5 days and OECD Asia Pacific 2.0 days below the latest five-year average, at 60.6 days and 45.7 days, respectively. OECD Europe was 8.6 days below the latest five-year average, standing at 65.6 days.

OECD Americas

OECD Americas' total commercial stocks fell by 17.4 mb, m-o-m, in January to settle at 1,509 mb. This is 2.9 mb lower than the same month in 2023 and 24.1 mb below the latest five-year average.

Commercial crude oil stocks in OECD Americas rose by 1.0 mb, m-o-m, in January to stand at 760 mb, which is 13.9 mb less than in January 2023 and 6.1 mb lower than the latest five-year average.

In contrast, total product stocks in OECD Americas fell m-o-m by 18.5 mb in January to stand at 749 mb. This is 10.9 mb higher than the same month in 2023, but 18.0 mb below the latest five-year average. Higher consumption in the region was behind the product stock draw.

OECD Europe

OECD Europe's total commercial stocks fell by 5.2 mb, m-o-m, in January to settle at 879 mb. This is 86.5 mb lower than the same month in 2023, and 92.5 mb below the latest five-year average.

OECD Europe's commercial crude stocks dropped by 6.6 mb, m-o-m, to end January at 383 mb. This is 41.0 mb less than one year ago and 33.5 mb lower than the latest five-year average.

In contrast, Europe's total product stocks rose by 1.5 mb, m-o-m, to end January at 496 mb. This is 45.5 mb less than the same time a year ago and 59.0 mb below the latest five-year average.

OECD Asia Pacific

OECD Asia Pacific's total commercial oil stocks fell by 4.2 mb, m-o-m, in January to stand at 346 mb. This is 4.3 mb lower than the same time a year ago and 15.9 mb below the latest five-year average.

OECD Asia Pacific's crude stocks fell by 5.1 mb, m-o-m, to end January at 175 mb. This is 6.6 mb lower than one year ago and 12.9 mb below the latest five-year average.

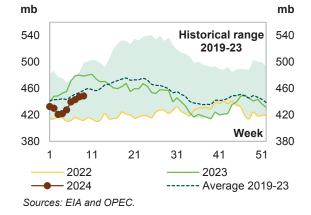
In contrast, OECD Asia Pacific's total product stocks rose by 0.8 mb, m-o-m, to end January at 171 mb. This is 2.3 mb higher than one year ago, but 2.9 mb below the latest five-year average.

US

Preliminary data for February 2024 shows that total Graph 9 - 2: US weekly commercial crude oil US commercial oil stocks fell by 4.2 mb, m-o-m, to inventories stand at 1,223 mb. This is 43.9 mb, or 3.5%, lower than the same month in 2023 and 30.5 mb, or 2.4%, below the latest five-year average. Crude stocks rose by 21.1 mb, while product stocks fell by 25.3 mb, m-o-m.

US commercial crude stocks in February stood at 449 mb. This is 23.8 mb, or 5.0%, less than the same month in 2023, and 7.3 mb, or 1.6%, below the latest five-year average. The monthly build in crude oil stocks came on the back of higher crude imports.

Total product stocks fell in February to stand at 774 mb. This is 20.1 mb, or 2.5%, lower than February 2023, and 23.2 mb, or 2.9%, below the latest five-year average. The product stock draw can be attributed to higher product consumption.

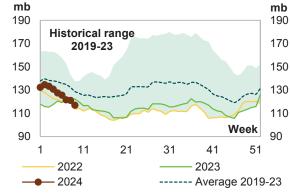


Gasoline stocks fell in February by 11.2 mb, m-o-m, to settle at 240 mb. This is 2.6 mb, or 1.1%, higher than the same month in 2023, but 8.1 mb, or 3.2%, below the latest five-year average.

Distillate stocks in February dropped by 10.6 mb, Graph 9 - 3: US weekly distillate inventories m-o-m, to stand at 117 mb. This is 7.8 mb, or 6.3%, lower than the same month in 2023, and 14.7 mb, or 11.2%, below the latest five-year average.

Jet fuel stocks fell by 0.8 mb, m-o-m, ending February at 40 mb. This is 2.6 mb, or 6.8%, higher than the same month in 2023, but 0.3 mb, or 0.8%, below the latest five-year average.

Residual fuel oil stocks increased by 2.1 mb, m-o-m, in February. At 30 mb, they were 1.8 mb, or 5.6%, lower than a year earlier and 0.5 mb, or 1.8%, below the latest five-year average.



Sources: EIA and OPEC.

Table 9 - 2: US commercial petroleum stocks, mb

					Change
US stocks	Feb 23	Dec 23	Jan 24	Feb 24	Feb 24/Jan 24
Crude oil	472.4	426.4	427.4	448.5	21.1
Gasoline	242.3	241.3	251.0	239.7	-11.2
Distillate fuel	124.8	130.7	127.6	117.0	-10.6
Residual fuel oil	31.3	24.1	27.5	29.6	2.1
Jet fuel	37.5	39.8	40.9	40.1	-0.8
Total products	794.4	825.8	799.6	774.3	-25.3
Total	1,266.7	1,252.2	1,227.1	1,222.8	-4.2
SPR	371.6	354.7	358.0	361.0	2.9

Sources: EIA and OPEC.

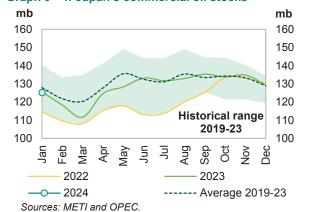
Japan

In Japan, total commercial oil stocks in January 2024 fell by 4.2 mb, m-o-m, to settle at 125.2 mb. This is 0.4 mb, or 0.3%, lower than the same month in 2023 and 2.7 mb, or 2.1%, below the latest five-year average. Crude stocks fell by 5.1 mb, while product stocks rose by 0.8 mb.

Japanese commercial crude oil stocks fell in Graph 9 - 4: Japan's commercial oil stocks January by 5.1 mb, m-o-m, to stand at 66.5 mb. This is 0.7 mb, or 1.0%, lower than the same month in 2023 and 0.3 mb, or 0.5%, below the latest five-year average. The fall in crude stocks could be attributed to lower crude imports, which fell in January by 228 tb/d, or 8.6%, m-o-m, to average 2.43 mb/d.

Gasoline stocks rose by 1.3 mb, m-o-m, to stand at 11.3 mb in January. This is in line with a year earlier and 0.5 mb, or 4.5%, lower than the latest five-year average.

Distillate stocks rose by 0.1 mb, m-o-m, to end January at 26.9 mb. This is 0.5 mb, or 1.8%, higher than the same month in 2023, but 0.6 mb, or 2.2%, lower than the latest five-year average.



Within the distillate components, jet fuel and gasoil stocks rose by 0.1% and 23.2%, respectively, while kerosene stocks fell by 12.1%.

Total residual fuel oil stocks fell m-o-m by 0.1 mb to end January at 12.4 mb. This is 1.4 mb, or 12.5%, higher than the same month in 2023, and 0.1 mb, or 0.4%, above the latest five-year average. Within the components, fuel oil A stocks fell by 3.3%, while fuel oil B.C stocks rose by 0.8%, m-o-m.

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

					Change
Japan's stocks	Jan 23	Nov 23	Dec 23	Jan 24	Jan 24/Dec 23
Crude oil	67.2	72.3	71.5	66.5	-5.1
Gasoline	11.2	10.4	9.9	11.3	1.3
Naphtha	9.7	8.7	8.7	8.2	-0.5
Middle distillates	26.4	31.0	26.8	26.9	0.1
Residual fuel oil	11.1	12.4	12.5	12.4	-0.1
Total products	58.4	62.5	57.9	58.8	0.8
Total**	125.6	134.8	129.5	125.2	-4.2

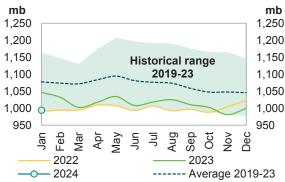
Note: * At the end of the month. ** Includes crude oil and main products only.

Sources: METI and OPEC.

EU-14 plus UK and Norway

Preliminary data for January 2024 showed that total Graph 9 - 5: EU-14 plus UK and Norway total oil European commercial oil stocks fell by 5.2 mb, stocks m-o-m, to stand at 994 mb. At this level, they were 52.0 mb, or 5.0%, below the same month in 2023 and 83.3 mb, or 7.7%, less than the latest five-year average. Crude stocks fell by 6.6 mb, while product stocks rose by 1.5 mb, m-o-m.

European crude stocks stood at 419.5 mb in January. This is 13.7 mb, or 3.2%, lower than the same month in 2023 and 30.7 mb, or 6.8%, below the latest five-year average. The drop in crude oil stocks came despite lower refinery throughput in the EU-14, plus the UK and Norway, which fell by around 130 tb/d, m-o-m, to stand at 9.64 mb/d.



Sources: Argus, Euroilstock and OPEC.

In contrast, total European product stocks rose by 1.5 mb, m-o-m, to end January at 574.9 mb. This is 38.3 mb, or 6.2%, less than the same month in 2023, and 52.6 mb, or 8.4%, below the latest five-year average. The build could be attributed to lower demand in the region.

Gasoline stocks rose in January by 1.4 mb, m-o-m, to stand at 105.5 mb, which is 6.7 mb, or 6.0%, lower than the same time in 2023, and 14.1 mb, or 11.8%, below the latest five-year average.

Residual fuel stocks rose in January by 1.4 mb, m-o-m, to stand at 56.8 mb. This is 4.8 mb, or 7.9%, lower than the same month in 2023 and 6.3 mb, or 10.0%, below the latest five-year average.

Middle distillate stocks fell in January by 1.1 mb, m-o-m, to stand at 384.3 mb. This is 25.5 mb, or 6.2%, less than the same month in 2023, and 31.5 mb, or 7.6%, lower than the latest five-year average.

Naphtha stocks were down in January by 0.3 mb, m-o-m, ending the month at 28.3 mb, which is 1.2 mb, or 4.2%, below the same month in 2023 and 0.7 mb, or 2.5%, lower than the latest five-year average.

Table 9 - 4: FII-14 plus IIK and Norway's total oil stocks mb

Tubic 3 - 4. LO-14 plus oft all	a morning o total t	on otooko, mb			
					Change
EU stocks	Jan 23	Nov 23	Dec 23	Jan 24	Jan 24/Dec 23
Crude oil	433.3	417.9	426.2	419.5	-6.6
Gasoline	112.2	106.5	104.0	105.5	1.4
Naphtha	29.6	27.6	28.6	28.3	-0.3
Middle distillates	409.8	370.7	385.4	384.3	-1.1
Fuel oils	61.6	58.2	55.3	56.8	1.4
Total products	613.2	563.1	573.4	574.9	1.5
Total	1,046.4	981.0	999.6	994.4	-5.2

Sources: Argus, Euroilstock and OPEC.

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

Singapore

In **January**, **total product stocks** in Singapore fell by 1.1 mb, m-o-m, to stand at 41.5 mb. This is 5.0 mb, or 10.8%, lower than the same month in 2023 and 6.2 mb, or 13.0%, below the latest five-year average.

Light distillate stocks rose in January by 0.1 mb, m-o-m, to stand at 13.2 mb. This is 3.7 mb, or 22.0%, lower than the same month in 2023 and 2.1 mb, or 13.7%, below the latest five-year average.

By contrast, middle distillate stocks dropped in January by 0.7 mb, m-o-m, to stand at 6.9 mb. This is 2.1 mb, or 23.3%, lower than in January 2023, and 3.9 mb, or 35.9%, below the latest five-year average

Residual fuel oil stocks fell by 0.4 mb, m-o-m, ending January at 21.4 mb. This is 0.8 mb, or 3.9%, higher than in January 2023, but 0.2 mb, or 1.1%, below the latest five-year average.

ARA

Total product stocks in ARA in January rose by 0.1 mb, m-o-m. At 37.9 mb, they were 6.9 mb, or 15.3%, below the same month in 2023, and 5.5 mb, or 12.7 %, less than the latest five-year average.

Gasoline stocks fell by 0.6 mb, m-o-m, ending January at 7.2 mb. This is 4.8 mb, or 40.4%, lower than in January 2023, and 3.6 mb, or 33.4%, below the latest five-year average.

Gasoil stocks in January fell by 0.8 mb, m-o-m, to stand at 12.6 mb. This is 4.4 mb, or 25.6%, less than the same month in 2023, and 4.4 mb, or 25.7%, lower than the latest five-year average.

Jet oil stocks rose by 0.2 mb, m-o-m, to stand at 5.8 mb. This is 0.5 mb, or 7.9%, lower than in January 2023 and broadly in line with the latest five-year average.

Fuel oil stocks increased in January by 1.0 mb, m-o-m, to stand at 9.6 mb, which is 2.4 mb, or 33.6%, higher than in January 2023 and 2.2 mb, or 29.9%, above the latest five-year average.

Fujairah

During the week ending 4 March 2024, **total oil product stocks** in Fujairah rose by 0.07 mb, w-o-w, to stand at 18.81 mb, according to data from FEDCom and S&P Global Commodity Insights. At this level, total oil stocks were 2.08 mb lower than at the same time a year ago.

Middle distillate stocks fell by 0.10 mb, w-o-w, to stand at 1.54 mb, which is 0.68 mb less than the same time last year.

Heavy distillate stocks fell by 0.34 mb, w-o-w, to stand at 8.97 mb, which is 2.54 mb below the same period a year ago.

In contrast, **light distillate stocks** rose by 0.51 mb, w-o-w, to stand at 8.29 mb, which is 1.14 mb higher than a year ago.

Balance of Supply and Demand

Demand for OPEC crude in 2023 stood at 27.3 mb/d. This is in line with the level registered in 2022.

According to secondary sources, OPEC crude production averaged 27.0 mb/d in 2023, which is 0.3 mb/d lower than demand for OPEC crude.

Demand for OPEC crude in 2024 is forecast to stand at 28.5 mb/d, which is 1.1 mb/d higher than the level estimated for 2023.

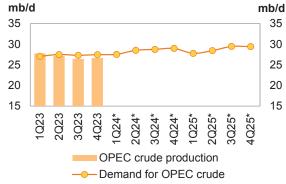
Demand for OPEC crude in 2025 is forecast to stand at 28.8 mb/d, which is 0.3 mb/d higher than the level forecast for 2024.

Balance of supply and demand in 2024

Demand for OPEC crude in 2024 is revised up by Graph 10 - 1: Balance of supply and demand, compared to the previous month 2023-2025* assessment to stand at 28.5 mb/d, around 1.1 mb/d higher than the level estimated for 2023.

Compared with the previous assessment, demand for OPEC crude for 1Q24 was revised down by 0.3 mb/d, while demand in 2Q24 and 4Q24 was revised up by 0.3 mb/d and 0.2 mb/d, respectively. Meanwhile, demand for OPEC crude remained unchanged for 3Q24.

Compared with the same quarters in 2023, demand for OPEC crude in 1Q24 and 2Q24 is forecast to be 0.5 mb/d and 1.0 mb/d higher, respectively. Meanwhile, it is expected to increase by 1.4 mb/d and 1.5 mb/d, respectively.



Note: * 1Q24-4Q25 = Forecast. Source: OPEC.

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

							Change
	2023	1Q24	2Q24	3Q24	4Q24	2024	2024/23
(a) World oil demand	102.21	103.33	103.91	104.88	105.69	104.46	2.25
Non-OPEC liquids production	69.46	70.32	69.88	70.66	71.24	70.53	1.07
OPEC NGL and non-conventionals	5.41	5.45	5.50	5.46	5.46	5.47	0.06
(b) Total non-OPEC liquids production and OPEC NGLs	74.87	75.78	75.38	76.12	76.70	76.00	1.13
Difference (a-b)	27.34	27.55	28.53	28.76	28.98	28.46	1.12
OPEC crude oil production	27.01						
Balance	-0.33						

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

Source: OPEC.

Balance of supply and demand in 2025

Demand for OPEC crude in 2025 was revised down by 0.1 mb/d the previous assessment to stand at 28.8 mb/d, an increase of 0.3 mb/d over the level forecast for 2024.

Compared with the last MOMR, demand for OPEC crude for the first three quarters of 2025 was revised down by 0.1 mb/d each, while 4Q25 was revised up by 0.1 mb/d.

Compared with the same quarters in 2024, demand for OPEC crude in 1Q25, 3Q25 and 4Q25 is forecast to be 0.3 mb/d, 0.7 mb/d and 0.5 mb/d higher, respectively, while demand for OPEC crude in 2Q25 is expected to be 0.1 mb/d lower.

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

Change 2024 1Q25 2Q25 3Q25 4Q25 2025 2025/24 (a) World oil demand 104.46 105.15 105.65 106.94 107.44 106.30 1.85 Non-OPEC liquids production 70.53 71.80 71.60 71.89 72.42 71.93 1.40 **OPEC NGL** and non-conventionals 5.47 5.55 5.61 5.58 5.58 5.58 0.11 77.35 77.51 (b) Total non-OPEC liquids production and OPEC NGLs 76.00 77.21 77.47 78.01 1.51 28.46 27.80 28.44 29.47 29.44 28.79 0.33 Difference (a-b)

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

Source: OPEC.

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

World oil demand and supply													
balance	2021	2022	2023	1Q24	2Q24	3Q24	4Q24	2024	1Q25	2Q25	3Q25	4Q25	2025
World demand													
Americas	24.28	24.79	25.09	24.68	25.38	25.58	25.54	25.30	24.74	25.43	25.70	25.62	25.38
of which US	20.03	20.16	20.41	20.09	20.67	20.67	20.89	20.58	20.12	20.70	20.73	20.93	20.62
Europe	13.19	13.51	13.39	13.12	13.57	13.66	13.31	13.42	13.14	13.58	13.68	13.33	13.43
Asia Pacific	7.34	7.38	7.34	7.80	6.97	7.09	7.54	7.35	7.81	6.98	7.10	7.55	7.36
Total OECD	44.81	45.68	45.82	45.60	45.93	46.33	46.39	46.06	45.69	46.00	46.49	46.50	46.17
China	15.10	14.95	16.19	16.13	16.77	17.09	17.29	16.82	16.56	17.15	17.53	17.68	17.23
India	4.77	5.14	5.34	5.64	5.64	5.40	5.59	5.57	5.86	5.88	5.61	5.82	5.79
Other Asia	8.67	9.07	9.28	9.64	9.74	9.49	9.51	9.59	9.93	10.07	9.82	9.81	9.91
Latin America	6.25	6.44	6.69	6.79	6.88	6.97	6.88	6.88	6.99	7.07	7.19	7.07	7.08
Middle East	7.79	8.30	8.63	8.91	8.76	9.38	9.00	9.01	9.29	9.10	9.84	9.35	9.40
Africa	4.22	4.40	4.46	4.65	4.37	4.39	4.82	4.56	4.77	4.47	4.52	4.93	4.67
Russia	3.62	3.75	3.84	3.89	3.80	3.99	4.08	3.94	3.95	3.85	4.05	4.12	3.99
Other Eurasia	1.21	1.15	1.17	1.27	1.24	1.08	1.28	1.22	1.30	1.27	1.12	1.31	1.25
Other Europe	0.75	0.77	0.78	0.81	0.78	0.77	0.84	0.80	0.82	0.79	0.78	0.85	0.81
Total Non-OECD	52.38	53.98	56.39	57.73	57.99	58.55	59.29	58.39	59.46	59.66	60.45	60.95	60.13
(a) Total world demand	97.19		102.21		103.91	104.88	105.69			105.65			106.30
Y-o-y change	5.94	2.46	2.56	2.03	2.17	2.68	2.10	2.25	1.83	1.74	2.06	1.76	1.85
Non-OPEC liquids production	05.40	00.04	00.74	00.07	20.00	00.50	00.00	00.44	00.00	00.00	00.00	20.50	20.45
Americas	25.46	26.91	28.71	29.07	29.23	29.58	29.89	29.44	29.96	29.86	30.23	30.52	30.15
of which US	18.06	19.28	20.90	21.03	21.37	21.60	21.78	21.45	21.80	21.95	22.15	22.28	22.05
Europe	3.80	3.59	3.66	3.79	3.74	3.72	3.88	3.78	3.96	3.84	3.82	3.92	3.88
Asia Pacific	0.51	0.48	0.44	0.45	0.42	0.43	0.42	0.43 33.66	0.43	0.42	0.43	0.43	0.42
Total OECD	29.77	30.98	32.81	33.31	33.40	33.74	34.19		34.35	34.12	34.48	34.88	34.46
China India	4.27 0.78	4.42 0.77	4.52	4.60	4.59	4.46 0.79	4.46 0.78	4.53 0.79	4.57	4.55 0.79	4.51	4.51	4.53
Other Asia	2.44	2.31	0.77 2.28	0.79	0.79	2.22	2.22	2.25	0.78 2.23	2.19	0.80	0.80	0.80
Latin America	5.96	6.34	6.96	2.31 7.30	7.27	7.31	7.37	7.31	7.51	7.54	2.17 7.61	2.17 7.67	7.58
Middle East	3.19	3.29	3.27	3.24	3.24	3.27	3.28	3.26	3.28	3.31	3.31	3.31	3.30
Africa	2.52	2.48	2.42	2.43	2.38	2.42	2.45	2.42	2.44	2.44	2.43	2.43	2.44
Russia	10.80	11.03	10.93	10.83	10.44	10.85	10.87	10.75	10.89	10.87	10.86	10.89	10.88
Other Eurasia	2.95	2.85	2.93	2.90	2.91	2.99	3.01	2.95	3.07	3.11	3.05	3.09	3.08
Other Europe	0.11	0.11	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Total Non-OECD	33.01	33.60	34.18	34.49	33.96	34.40	34.53	34.35	34.87	34.91	34.84	34.97	34.90
Total Non-OPEC production	62.79	64.58	66.99	67.80	67.36	68.14	68.72	68.01	69.22	69.02	69.31	69.84	69.35
Processing gains	2.29	2.40	2.47	2.52	2.52	2.52	2.52	2.52	2.58	2.58	2.58	2.58	2.58
Total Non-OPEC liquids	2.20			2.02			2.02	2.02	2.00	2.00	2.00	2.00	2.00
production	65.07	66.98	69.46	70.32	69.88	70.66	71.24	70.53	71.80	71.60	71.89	72.42	71.93
OPEC NGL +													
non-conventional oils	5.25	5.36	5.41	5.45	5.50	5.46	5.46	5.47	5.55	5.61	5.58	5.58	5.58
(b) Total non-OPEC liquids													
production and OPEC NGLs	70.32	72.34	74.87	75.78	75.38	76.12	76.70	76.00	77.35	77.21	77.47	78.01	77.51
Y-o-y change	0.74	2.02	2.53	1.55	1.15	1.24	0.60	1.13	1.57	1.83	1.35	1.30	1.51
OPEC crude oil production													
(secondary sources)	25.23	27.73	27.01										
Total liquids production	95.55	100.06	101.88										
Balance (stock change and													
miscellaneous)	-1.65	0.41	-0.33										
OECD closing stock levels,													
mb													
Commercial	2,652	2,781	2,761										
SPR	1,484	1,214	1,209										
Total	4,136	3,995	3,971										
Oil-on-water	1,348	1,546	1,438										
Days of forward consumption in OECD, days													
Commercial onland stocks	58	61	60										
SPR	32	26	26										
Total	91	87	86										
Memo items													
(a) - (b)	26.87	27.32	27.34	27.55	28.53	28.76	28.98	28.46	27.80	28.44	29.47	29.44	28.79

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

Oil Market Report - March 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

- Global oil demand is forecast to rise by a higher-than-expected 1.7 mb/d in 1Q24 on an improved outlook for the United States and increased bunkering. While 2024 growth has been revised up by 110 kb/d from last month's Report, the pace of expansion is on track to slow from 2.3 mb/d in 2023 to 1.3 mb/d, as demand growth returns to its historical trend while efficiency gains and EVs reduce use.
- World oil production is projected to fall by 870 kb/d in 1Q24 vs 4Q23 due to heavy weather-related shut-ins and new curbs from the OPEC+ bloc. From the second quarter, non-OPEC+ is set to dominate gains after some OPEC+ members announced they would extend extra voluntary cuts to support market stability. Global supply for 2024 is forecast to increase 800 kb/d to 102.9 mb/d, including a downward adjustment to OPEC+ output.
- Refinery crude runs are forecast to rise from a February-low of 81.4 mb/d to a summer peak of 85.6 mb/d in August. For the year as a whole, throughputs are projected to increase by 1.2 mb/d to average 83.5 mb/d, driven by the Middle East, Africa and Asia. Refining margins improved through mid-February before receding, with the US Midcontinent and Gulf Coast as well as Europe leading the gains.
- Global observed oil inventories surged by 47.1 mb in February. Offshore stocks dominated gains as seaborne exports reached an all-time high and shipping disruptions through the Red Sea tied up significant volumes of oil on water while onshore inventories declined. Global stocks plunged by 48.1 mb in January, with OECD industry stocks at a 16-month low.
- ICE Brent futures rose by \$2/bbl during February as ongoing Houthi shipping attacks in the Red Sea kept a firm bid under crude prices. With oil tankers taking the longer route around Africa more oil was kept on water, further tightening the Atlantic Basin market and sending crude's forward price structure deeper into backwardation. At the time of writing, Brent was trading at \$83/bbl.

Oil on water

Benchmark crude oil prices were range bound in early March, as the market had already priced in the announced extension of OPEC+ voluntary production cuts through 2Q24. North Sea Dated rose by \$2.13/bbl to \$84.66/bbl during February as continued tanker attacks in the Red Sea lengthened supply routes and global on-land oil inventories fell for a seventh consecutive month to reach their lowest level since at least 2016.

Global onshore oil stocks fell a further 38 mb last month, taking the draw down since July to 180 mb, according to preliminary data. Over the same period, oil on water surged. Trade dislocations from the rerouting of Russian barrels and more recently due to unrest in the Middle East, have

boosted oil on water by 115 mb. In February alone, oil on water surged by 85 mb as repeated tanker attacks in the Red Sea diverted more cargoes around the Cape of Good Hope. At nearly 1.9 billion barrels as of end-February, oil on water hit its second highest level since the height of the Covid-19 pandemic.

Trade flow disruptions also boosted bunker fuel use. Longer shipping routes and faster vessel speeds saw Singapore bunkering reach all-time highs. That, along with surging US ethane demand for its petrochemical sector underpins a slight upward revision to our global oil demand expectations for this year by 110 kb/d compared with last month's Report. World oil demand growth is now forecast at 1.3 mb/d in 2024, down sharply from last year's 2.3 mb/d expansion.

The slowdown in growth, already apparent in recent data, means that oil consumption reverts towards its historical trend after several years of volatility from the post-pandemic rebound. A weaker economic outlook further tempers oil use, as do efficiency improvements and surging electric vehicle sales. Growth will continue to be heavily skewed towards non-OECD countries, even as China's dominance gradually fades. The latter's oil demand growth slows from 1.7 mb/d in 2023 to 620 kb/d in 2024, or from roughly three-quarters to half of the global total, under the gathering weight of a challenging economic environment and slower expansion in its petrochemical sector.

As in 2023, non-OPEC+ oil supply growth will eclipse the oil demand expansion by some margin. Led by the United States, non-OPEC+ production is forecast to rise by 1.6 mb/d in 2024 compared to 2.4 mb/d last year when global oil output climbed by 2 mb/d to 102 mb/d. Substantial gains will also come from Guyana, Brazil and Canada, all forecast to pump at recordhighs this year. Together, the non-OPEC+ Americas quartet is set to add 1.3 mb/d of new oil production in 2024.

Iran, which last year ranked as the world's second largest source of supply growth after the United States, is expected to increase production by a further 280 kb/d this year. Output policy for the remainder of the OPEC+ bloc will be revisited when ministers meet in Vienna on 1 June to review market conditions. In this Report, we are now holding OPEC+ voluntary cuts in place through 2024 – unwinding them only when such a move is confirmed by the producer alliance (see OPEC+ cuts extended). On that basis, our balance for the year shifts from a surplus to a slight deficit, but oil tanks may get some relief as the massive volumes of oil on water reach their final destination.

OPEC+ crude oil production¹

million barrels per day

	Jan 2024 Supply	Feb 2024 Supply	Feb Prod vs Target	Feb-2024 Implied Target ¹	Sustainable Capacity ²	Eff Spare Cap vs Feb ³
Algeria	0.91	0.91	0.0	0.91	0.99	0.08
Congo	0.26	0.25	-0.03	0.28	0.27	0.02
Equatorial Guinea	0.05	0.05	-0.02	0.07	0.06	0.01
Gabon	0.22	0.22	0.05	0.17	0.22	0.0
Iraq	4.25	4.25	0.25	4.0	4.79	0.54
Kuwait	2.47	2.44	0.03	2.41	2.85	0.41
Nigeria	1.39	1.36	-0.14	1.5	1.46	0.1
Saudi Arabia	8.97	8.99	0.01	8.98	12.11	3.12
UAE	3.22	3.22	0.31	2.91	4.28	1.06
Total OPEC-9 ⁴	21.74	21.69	0.47	21.22	27.03	5.34
Iran ⁵	3.17	3.2			3.8	
Libya ⁵	1.03	1.16			1.23	0.07
Venezuela ⁵	0.83	0.86			0.85	-0.01
Total OPEC	26.77	26.91			32.91	5.4
Azerbaijan	0.47	0.48	-0.08	0.55	0.54	0.06
Kazakhstan	1.64	1.59	0.12	1.47	1.67	0.08
Mexico ⁶	1.6	1.62			1.63	0.02
Oman	0.77	0.76	0.0	0.76	0.85	0.09
Russia	9.4	9.42	-0.03	9.45	9.78	
Others ⁷	0.84	0.8	-0.06	0.87	0.88	0.07
Total Non-OPEC	14.73	14.67	-0.04	13.1	15.35	0.32
OPEC+ 18 in Nov 2022 deal ⁵	34.86	34.74	0.42	34.32	40.74	5.64
Total OPEC+	41.5	41.58			48.25	5.72

^{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)

2024-03-14 09:00:00.1 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		
	2024	2024	2024	2024	2023	2023	2023	2023	2024	2023
					Den	and				
Total Demand	103.7	104.0	103.0	102.0	102.2	103.0	101.9	100.3	103.2	101.8
Total OECD	45.8	45.9	45.7	45.7	46.1	46.0	45.7	45.4	45.8	45.8
Americas	25.1	25.3	25.2	24.8	25.3	25.3	25.2	24.5	25.1	25.1
Europe	13.2	13.5	13.5	13.2	13.3	13.6	13.6	13.1	13.3	13.4
Asia Oceania	7.5	7.0	7.0	7.8	7.5	7.1	7.0	7.8	7.3	7.3
Non-OECD countries	57.9	58.1	57.4	56.3	56.1	56.9	56.2	55.0	57.4	56.0
FSU	4.9	5.0	4.8	4.8	4.9	5.0	4.9	4.9	4.9	4.9
Europe	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
China	17.3	17.4	17.0	16.4	16.4	16.9	16.6	15.6	17.0	16.4
Other Asia	15.1	14.6	15.0	15.1	14.6	14.1	14.5	14.5	14.9	14.4
Americas	6.5	6.5	6.4	6.3	6.4	6.5	6.3	6.2	6.4	6.4
Middle East	8.9	9.5	9.0	8.7	8.6	9.3	8.8	8.7	9.0	8.8
Africa	4.5	4.3	4.4	4.3	4.3	4.2	4.3	4.3	4.4	4.3
					Sur	pply				
Total Supply	n/a	n/a	n/a	n/a	102.9	101.9	101.7	101.8	n/a	102.1
Non-OPEC	71.0	70.7	70.2	69.6	70.4	69.6	68.5	68.0	70.4	69.1
Total OECD	32.4	31.9	31.7	31.5	32.0	31.2	30.6	30.4	31.9	31.1
Americas	28.7	28.3	28.0	27.8	28.3	27.7	26.9	26.7	28.2	27.4
Europe	3.2	3.1	3.2	3.2	3.3	3.1	3.2	3.3	3.2	3.2
Asia Oceania	0.4	0.5	0.5	0.5	0.4	0.5	0.5	0.5	0.5	0.5
Non-OECD	33.0	32.8	32.7	32.9	32.8	32.4	32.4	32.7	32.8	32.6
FSU	13.7	13.5	13.4	13.7	13.8	13.6	13.8	14.1	13.6	13.8
Europe	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	4.3	4.3	4.4	4.3	4.3	4.2	4.3	4.3	4.3	4.3
Other Asia	2.6	2.6	2.6	2.6	2.7	2.6	2.7	2.7	2.6	2.7
Americas	6.8	6.7	6.7	6.6	6.5	6.3	6.0	6.0	6.7	6.2
Middle East	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
Africa	2.5	2.5	2.5	2.5	2.4	2.5	2.4	2.3	2.5	2.4
Processing Gains	2.4	2.4	2.4	2.4	2.4	2.4	2.3	2.3	2.4	2.4
Total OPEC	n/a	n/a	n/a	n/a	32.5	32.3	33.2	33.7	n/a	32.9
Crude	n/a	n/a	n/a	n/a	27.0	26.9	27.8	28.3	n/a	27.5
Natural gas										
liquids NGLs	5.6	5.6	5.5	5.5	5.5	5.5	5.4	5.4	5.5	5.5
Call on OPEC crude										
and stock change *	27.1	27.7	27.3	27.0	26.3	27.9	27.9	26.9	27.3	27.3

^{*} 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: February Crude Oil Production in OPEC Countries (Table)

2024-03-14 09:00:00.0 GMT

By Kristian Siedenburg

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

OPEC countries from the International Energy Agency in Paris:

	Feb.	Jan.	Feb.
	2024	2024	MoM
Total OPEC	26.91	26.77	0.14
Total OPEC9	21.69	21.74	-0.05
Algeria	0.91	0.91	0.00
Congo	0.25	0.26	-0.01
Equatorial Guinea	0.05	0.05	0.00
Gabon	0.22	0.22	0.00
Iraq	4.25	4.25	0.00
Kuwait	2.44	2.47	-0.03
Nigeria	1.36	1.39	-0.03
Saudi Arabia	8.99	8.97	0.02
UAE	3.22	3.22	0.00
Iran	3.20	3.17	0.03
Libya	1.16	1.03	0.13
Venezuela	0.86	0.83	0.03

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 World Oil Supply/Demand Key Forecasts

2024-03-14 09:00:00.3 GMT

By Kristian Siedenburg

(Bloomberg) -- World oil demand 2024 forecast was revised to 103.2m b/d from 103.0m b/d in Paris-based Intl Energy Agency's latest monthly report.

- * 2023 world demand was unrevised at 101.8m b/d
- * Demand change in 2024 est. 1.3% y/y or 1.33m b/d
- * Non-OPEC supply 2024 was revised to 70.4m b/d from 70.6m b/d
- * Call on OPEC crude 2024 was revised to 27.3m b/d from 26.8m

b/d

- * Call on OPEC crude 2023 was revised to 27.3 m b/d from 27.2m b/d
- ** OPEC crude production in Feb. rose by 140k b/d on the month to 26.9m b/d
- * Detailed table: FIFW NSN SABU0FGEZ1FK <GO>
- * NOTE: Fcasts based off IEA's table providing one decimal point

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Oil Markets Face Supply Deficit All Year on OPEC+ Cuts, IEA Says

2024-03-14 09:00:00.19 GMT

By Grant Smith

(Bloomberg) -- Global oil markets face a supply deficit throughout 2024, instead of the surplus previously expected, as OPEC+ looks set to continue output cuts in the second half of the year, according to the International Energy Agency. Saudi Arabia and its partners agreed earlier this month to prolong roughly 2 million barrels day of production curbs to the middle of the year. The IEA assumes the measures will in fact continue until the end of 2024, reflecting the "bloc's efforts to balance oil markets," it said in a report.

"The changed assumptions shift our implied balance into a slight deficit rather than the hefty build in last month's report," said the Paris-based agency, which advises major economies. It also boosted forecasts for global demand this year.

While OPEC+ hasn't fully implemented its latest curbs, the measures are helping buoy crude prices against slowing consumption growth and abundant supplies from the Americas. Brent futures closed at a four-month high above \$84 a barrel on Wednesday.

The IEA bolstered forecasts for world oil demand growth in 2024 by 110,000 barrels to 1.3 million barrels a day, on a stronger US outlook and the increased need for ship fuel, as vessels take longer routes to avoid Houthi attacks in the Red Sea.

As a result of the diversions, the amount of oil aboard ships at sea soared to almost 1.9 billion barrels at the end of last month, the second-highest level since the height of the

Covid-19 pandemic, according to the report.

Global Demand

Global oil demand will average a record 103.2 million barrels a day this year, it said. The agency has boosted its 2024 growth forecast by roughly 50% since it was introduced last June, but it remains below growth rates expected by major traders like Vitol Group. The Organization of Petroleum Exporting Countries sees almost double the pace of demand growth.

The agency estimates that consumption growth is decelerating sharply from last year's 2.3 million barrels a day, as the post-pandemic rebound has run its course and the transition away from fossil fuels gathers pace. China's expansion will slow by two-thirds this year "under the gathering weight of a challenging economic environment and slower expansion in its petrochemical sector," it added.

Rising oil consumption this year will be surpassed by swelling supplies from the Americas — primarily the US, Brazil, Canada and Guyana — which would leave world markets in surplus were it not for the OPEC+ cutbacks.

Unusual Move

Assuming an extension of OPEC+ curbs before it's officially confirmed is an unusual move by the IEA, which typically waits for policies to be announced before factoring them in. The decision is based on repeated previous extensions by the alliance, the agency said. Group leader Saudi Arabia has often urged other members to be cautious in restoring output. OPEC+ will meet to decide whether it actually does extend cuts into the second half of the year at its Vienna headquarters on June 1.

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IEA Seems Some Room for OPEC+ to Boost Oil Output Later in Year 2024-03-14 09:11:09.18 GMT

By Francine Lacqua and James Herron

(Bloomberg) -- There could be room for OPEC+ to boost oil output later in the year, Toril Bosoni, head of oil markets at the International Energy Agency, told Bloomberg TV.

- * If OPEC+ were to fully unwind its current production cuts from July, the oil market could return to surplus in the second half
- * READ: Oil Markets Face Supply Deficit All Year on OPEC+ Cuts, IEA Says

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OPEC Crude Output Rose 140k B/D Last Month on Libya Rebound: IEA

2024-03-14 09:00:00.26 GMT

By Amanda Jordan

(Bloomberg) -- OPEC's February crude output rose 140k b/d from a month earlier to 26.91m b/d as a recovery in Libya countered losses elsewhere, the IEA said in its monthly market report.

- * Libyan production advanced 130k b/d to 1.16m b/d after its largest oil field, Sharara, was fully back online
- * Saudi volumes edged up to 8.99m b/d from 8.97m b/d
- * Kuwaiti output slipped slightly to 2.44m b/d, while the UAE held steady at 3.22m b/d
- * Iraqi production was little changed at 4.25m b/d, still above its OPEC+ quota
- * Iranian supply inched up to 3.2m b/d, near five-year highs
- * Nigeria's production dropped 30k b/d to 1.36m b/d, while Algerian output held at 910k b/d
- * Venezuelan volumes climbed 30k b/d to 860k b/d
- * NOTE: OPEC released its own figures for February on Tuesday, estimating its 12 members pumped 26.57m b/d

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Floating Storage Plunges as China Snaps Up Sanctioned Oil: IEA

2024-03-14 09:00:00.4 GMT

By Sherry Su

(Bloomberg) -- The global amount of crude oil and condensate stored on tankers was by the end of last year at its lowest level since at least 2016 as China snapped up big volumes of sanctioned oil, the IEA said in its monthly Oil Market Report.

- * The steady decline in floating storage volume from a June 2020 peak has provided an average of 140k b/d of oil to the market
- ** Over the same period, combined on-land inventories in Iran and Venezuela, both subject to sanctions, also steadily declined to the lowest levels since at least 2016, freeing up an additional 40k b/d
- * Floating storage rose to around 200m bbl following the collapse in demand due to the pandemic
- ** From 2Q 2022, when international oil prices exceeded \$100/bbl, oil in floating storage started to decline
- * "The call on it likely reflects the attractive discount on sanctioned oil, as well as lower availability of heavier sour crudes as other Middle East OPEC producers cut production," IEA said
- * An increase in tanker demand for the so-called shadow fleet to move sanctioned oil also helped reduce the storage
- * At the end of 2023, crude oil inventories in Venezuela fell to a near record low in data going back to 2016, while Iranian stocks returned to pre-sanction levels, IEA said, citing Kayrros
- * IEA said that the primary destination for these sanctioned barrels has been China. Although Chinese customs data showed almost no oil was imported from Iran and Venezuela, enormous amounts of crude oil and bitumen mix were imported from Malaysia, some of which are believed to contain oil from Iran or Venezuela

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By Bloomberg News

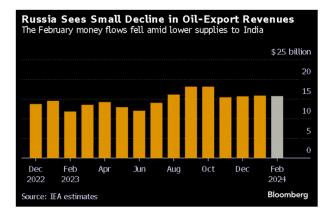
(Bloomberg) -- Russia's oil-export revenue declined in February as tougher monitoring of western sanctions against the Kremlin reduced some buyers' appetite for the nation's barrels, according to the International Energy Agency.

The top-three global oil producer earned \$15.69 billion from crude and petroleum product exports last month, down 0.95% from January, the Paris-based agency said in its monthly oil report on Thursday.

While Russia's petroleum-product exports stayed flat in February, its crude shipments fell to 4.75 million barrels a day, compared with the December peak of 5 million barrels a day, the IEA said.

The decline in Russian crude flows abroad was mainly driven by India, which reduced its purchases of Russian crude barrels by 420,000 barrels a day in February compared to the month before, the IEA said.

"The impact of lower crude export volumes was only partially offset by higher product export prices," the agency said.



Russia is the single-largest oil supplier to India as the South Asian nation is taking advantage of cheaper barrels that are subject to import bans in western nations. However, in the recent months the US and its allies have toughened monitoring of the global compliance with their energy sanctions against the Kremlin, and now Indian refineries are looking to buy more from competing producers such as Saudi Arabia.

Read More: India Cautious on Contracted Russian Oil as US Sanctions Bite

India's caution has created a backlog of tankers loaded with Sokol, a Russian crude export grade, off the shores of Singapore and South Korea. At its height, the stranded oil volumes amounted to as much as 18 million barrels and the backlog has started to clear only recently when Chinese refineries purchased some Sokol cargoes.

Russia's February crude loadings for China jumped to 2.2 million barrels a day, in line with the recent November peak, according to the IEA. The recorded month-on-month growth was

only 100,000 barrels a day, the agency said, pointing out that the actual deliveries may be higher as some 350,000 barrels of the daily export flows have no fixed destination yet and may head to Chinese buyers.

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IEA Raises Americas Oil Refining Forecasts While Cutting China

2024-03-14 09:00:00.11 GMT

By Rachel Graham

(Bloomberg) -- The IEA again raised its forecast for crude throughput this year in the Americas, partly due to weakness in China.

- * In OECD Americas, the stronger short-term outlook is driven by a faster-than-expected return from weather-related disruptions and lower maintenance estimates in the first half in the US
- ** The IEA also raised its forecast for OECD Europe
- * In China, the anticipated bounce from weak fourth-quarter levels has yet to materialize
- * "We expect that healthy margins and lower Chinese runs should provide room for additional OECD product supply"

China Weakness in Refining Allows Room for Higher Runs in the US The IEA has cut its crude throughput forecast for China again						
Region	IEA Report Date	2024 Crude Throughput				
OECD Americas	January	18.5m b/d				
	February	18.6				
	March	18.8				
China	January	15.4				
	February	15.3				
	March	15.2				
Source: IEA		Bloomberg				

- * USGC refiners face challenges in coming quarters
- ** Includes Canada's TMX pipeline expansion that will move sour crudes to West Coast markets at the expense of the Gulf
- ** Mexico's Dos Bocas will curtail Maya supply into the area;
 Dos Bocas not expected to be fully operational this year
- * Global refinery throughput revised up by 200k b/d to 83.5m in

2024

- ** The Middle East will lift crude runs by more than any other region
- ** The IEA again pushed back its expectation for Kuwait's Al Zour to be running at full capacity to 2Q
- * EARLIER: China's Teapot Oil Refiners Slash Output as Fuel Demand Fizzles

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Revolution Leader



state of jihad in support of Palestinians

oppressed and patient fighting Palestinian people.

Revolution Leader: We will enter Ramadan in state of jihad in support of Palestinians

[10/March/2024]

SANA'A March 10. 2024 (Saba) -The Revolution Leader, Sayyed Abdul Malik Badr al-Din al-Houthi, congratulated the Yemeni people, their heroic mujahideen, and members of the armed and security forces on the occasion of the blessed month of Ramadan.

In his speech today, Sunday, during an expanded meeting attended by scholars and leaders of the state, welcoming the holy month of Ramadan at the People's Mosque in the capital, Sana'a, the Revolution Leader extended his congratulations and blessings to the Islamic nation, first and foremost the

He touched on the educational contribution of the hypothesis of fasting in that it helps to adhere to piety, perform responsibilities, willpower, patience and endurance, and one of the most important things in Islam is that it educates on willpower.

He also pointed out that a nation that possesses willpower is strong and effective in facing major challenges.

Sayyed Abdulmalik Al-Houthi warned against neglecting the obligation of fasting and the importance of committing to piety, stressing the need to focus on other aspects of responsibilities during the month of Ramadan.

He also pointed out the importance of a person setting his priorities during the month of Ramadan, at the forefront of which is fasting, and taking greater care of the Holy Qur'an through its recitation and listening to its recitation with contemplation and understanding of what benefits a person and paying attention to God's guidance from the culture of the Holy Qur'an.

Al-Sayyed pointed out the importance of contributing to spreading God's guidance, reminding people of it, and benefiting from Ramadan programme, and its popularity and understanding.

He urged avoiding wasting Ramadan time watching series and electronic games, stressing the importance of educating children and warning them of the evils of these games and benefiting from the blessings of this holy month.

The leader stressed the necessity of paying attention to supplication and benefiting from the well-known supplications, which include the important aspects that a person needs, the most important of which are the supplications of Holy Qur'an.

He indicated that supplication is a great act of worship and a person needs God in everything.

He stated that supplication is of great importance in bringing goodness, averting evil from man, and restoring judgment. People should pray for salvation and forgiveness from God Almighty, to grant victory to the mujahideen, and to renew repentance to get rid of sins and transgressions.

He pointed out that supplication is not a substitute for action and that people must take into account the reasons for responding... explaining that supplication for victory requires responding to God in jihad and spending in His cause.

The leader also touched on the importance, greatness, virtue, and importance of the Night of Destiny, which exceeds the level of what a human being can imagine or comprehend, and represents a major shift and change in the course of life for those who invested in this night, took advantage of it, and was destined for good in it.

He stressed the importance of a person taking advantage of the month of Ramadan for mental and psychological preparation, getting closer to God, and getting rid of sins... urging attention to the last ten days of Ramadan, which the Prophet, may God's prayers and peace be upon him and his family, urged.

Sayyed Abdulmalik Badr al-Din al-Houthi also warned against neglecting to fast the month of Ramadan unless there is a legitimate excuse such as illness, travel, etc., stressing the importance of night prayer because of its great merit, goodness, and blessing with the Lord, Blessed and Most High.

He stated that among the priorities in this holy month are benevolence, giving, and sympathy to the poor, needy, and maintaining family ties as much as a person can, as well as taking care to pay the obligatory zakat.

He said, "One of the most important things about the month of Ramadan is that it is not only for acts of worship on a spiritual level, voluntary acts, etc., but rather it is one of the most important seasons for jihad for the sake of God, and the reward for jihadist deeds in the holy month is beyond what a person can imagine." The revolution leader stated that jihad during the month of Ramadan was not a holiday, and that is why it was the Great Battle of Badr that separated Islam from tyranny... indicating that the conquest of Mecca occurred at the time when God imposed fasting, and it was a historical achievement and a major change in the reality of the nation.

He added, "By God's grace, we will enter the blessed month in a state of jihad for the sake of God, in support of the Palestinians, and standing by their side with everything we can, with winged and ballistic missiles and drones, with fighting, with money, and with broad popular action."

He continued, "I do not rule out that many people may be bored, especially with going out weekly, even though it is one of the simplest tasks." Pointing out that going out for two hours in Al-Sabeen Square a week means that you are moving in a great position, and let your going out be part of your effort in the most important stages.

Sayyed Abdul-Malik Al-Houthi pointed out that if a person had reached the point of not having any contribution, position, or action towards the criminal aggression in Gaza, this would be one of the greatest breaches of piety.

He explained that many of the people of the nation responded to the calls of the people of Gaza with deafness, and whoever does not go out for two hours a week has reached a declining level in the spirit of faith, jihad and in sensing the importance of this position and this work.

He said, "The issue is not just demonstrations, as the demonstrations are completely linked to the missile position with Fighting with drones."

The leader stated that when the American missile and drone come to his battleships at sea, he sees that behind them is this flood of interactive human beings... stressing that popular interaction forces the enemy to work to obstruct direct military combat action by manipulating the internal situation and diverting attention to simple matters.

He added, "Our people today, with God's grace, are at the forefront of the Islamic peoples in freedom, pride, dignity, and strength. You come out with all pride, freedom, and pride to chant and scream clearly in the face of America, the Great Satan, and against the Israeli enemy. This is a position that is not available to many peoples."

He added, "This is a blessing and a virtue for our people to be a mujahid who carries the concerns of his nation and senses what his nation is suffering and the terrible oppression of the Palestinians, which no human being can reach the point of not caring about."

He wondered, "What cruelty and what negligence leads a person to ignore a great and terrible tragedy, crimes of genocide, and the cries of children and women and the nation of two billion Muslims are deafened and ignored?!"

The revolution leader pointed out that if the situation comes to the point that the Islamic world and the peoples remain silent and that they no longer have a voice, no movement, no position, and no financial cooperation, then this is a dangerous situation with consequences and penalties.

He said, "The Islamic nation will be punished for its negligence and its great negligence regarding what is happening in Gaza."

He pointed out that a person's salvation, victory, honor, and even humanity, is to remain a person with a heart, feeling, and conscience, so you move, go out, and a person should not, under the pretext of fasting, write off this issue from his concerns, but rather from the core of piety.

He explained, "One of the most important things about piety is that we remain concerned with fearing God in very big matters, and any neglect of them will face great danger."

The revolution leader also confirmed that what is happening in Gaza is part of targeting the entire nation. He said, "We are a targeted nation, and if we are not in a state of vigilance, do not carry the banner of jihad, we are concerned about the affairs of Muslims and we are part of this nation, then it is a very dangerous situation."

He pointed out that a person may die in a religion other than Islam as a result of his negligence in fearing God Almighty in the face of the threat of enemies to his religion and his nation... indicating that "if certain developments arise in the month of Ramadan, we will keep up with them, God willing, with what we sense and hope for from God's grace in what we have to do."

Sayyed Abdul Malik Badr Al-Din Al-Houthi reiterated, "Our operations will continue, God willing, our activities will continue for the most part, and there are basic and necessary activities that should continue."

He added, "For God's sake, and from the core of our religion and faith, O Yemen of faith, that attention to developments and events remain among our greatest priorities."



Revolution leader announces preventing ships linked to Zionist enemy from crossing through Indian Ocean

continues, we firm in our position.

Revolution leader announces preventing ships linked to Zionist enemy from crossing through Indian Ocean

[15/March/2024]

SANA'A 15. March 2024(Saba) - The leader of the revolution, al-Sayeed Abdul-Malik Badr al-Din al-Houthi, announced ships linked to the Israeli enemy would be prevented from crossing through the Indian Ocean in the direction adjacent to South Africa, towards the usurping enemy entity.

Al- Sayeed Abdulmalik Badr al-Din al-Houthi said in a speech this evening about the latest developments, and as long as the aggression, siege and starvation of the Palestinian people in Gaza

He revealed the serious intention to continue expanding the scope of military operations to areas and locations that the enemy never expected.

Al-Sayeed added, "We are moving, with Allah grace to prevent the crossing of ships linked to the Israeli enemy, even across the Indian Ocean and from South Africa towards the Good Hope Road."

He stated that there is no choice at all for the Americans or the British, except to stop the aggression against Gaza and stop the starvation of the people in Gaza.

Al-Sayeed Abdul-Malik Badr Al-Din Al-Houthi called on the masses of the Yemeni people to demonstrate in millions of people tomorrow, Friday in Al-Sabeen Square in the capital, Sana'a and the rest of the governorates to solidarity with the Palestinian people.

He urged the need for the popular momentum to remain parallel to the level and military position targeting the Israeli enemy, and for there to be continuity in the weekly outing of millions.

The Leader of the Revolution pointed out that the Zionist crimes in the Gaza Strip continue for the 160th day and are genocide in every sense of the word, indicating that the martyrs of Gaza are not just numbers that people hear, but rather are human lives.

He stated that the huge numbers of martyrs and wounded, most of whom children and women, are a disgrace to a world that claims to be civilized and sings of rights.

Al-Sayeed pointed out the severe suffering of the residents of the Gaza Strip as a result of the siege and starvation, and it is interesting to hear statements about the possibility of martyrs falling due to thirst.

Sayeed Abdul-Malik Badr al-Din al-Houthi denounced the failure and negligence of Muslims, especially most Arab countries, which contributes to the crime of the century against the Palestinian people.

He explained that the American increasing its contribution to the continuation of the Israeli crime against the Palestinian people by preventing the cessation of the aggression and insisting on the continuation of the siege.

He stated that the American landing operations do not cover a small percentage of the need, and it aimed at deceiving public opinion.

The leader of the revolution said, "In exchange for the limited aid that the Americans drop from the air in a seditious and dishonorable way, they provide tons of bombs to kill the people of Gaza."

He added, "If Muslims had taken a serious approach to supporting the Palestinian resistance, even with less than what America and the West offering to the enemy, the picture would have been different from battle in Gaza."

Al-Sayeed Abdul-Malik Badr al-Din al-Houthi stated that the Palestinian resistance in the first trench is fighting the battle of the entire nation, wondering, "Why the Islamic countries not moving to support it?"

He pointed out that it become shameful to talk about providing support to the Palestinian resistance, as if it should not be helped to continue the battle against the Zionist enemy, even though America and Western countries not embarrassed to provide the deadliest weapons to the Israeli enemy.

The leader of the revolution criticized some Arab regimes that not only failed the Palestinian resistance, but also abused it, distorted it, and included it on terrorist lists.

He expressed his regret that some Arab countries criminalize the jihad of resistance fighters in Gaza and prevent donations to them.

Al-Sayeed Abdulmalik Badr al-Din al-Houthi reiterated that the Israeli enemy is a dangerous and bad enemy that poses a danger to humanity and life.

The leader of the revolution stated that the Israeli enemy did not achieve, through its heinous crimes, nor the extent of American support, to break the will of the Palestinian people in Gaza.

He reported that hundreds of thousands of enemies suffering from great psychological trauma, widespread psychological illness, and clear evasion of conscription.

Al-Sayeed Abdul-Malik Badr al-Din al-Houthi surprised by the lack of the official side in the Arab and Islamic world to take a serious practical stance to support the Palestinian people.

He touched on how the enemy soldiers boasted about killing a defenseless and sick elderly man on his bed and proud of it.

Al-Sayeed stressed the need for Muslims to bear the responsibility of confronting enemies as they pose a threat to human society in general and to Muslims before others.

He also asked, "When will the nation stand up and take action? What do you want the situation in the Gaza Strip to reach? Do you want more than these tragic scenes?"

He urged everyone to review themselves and evaluate their positions, indicating that some had not reached the point of boycotting American and Israeli goods and products.

Al-Sayeed Abdul-Malik Badr al-Din al-Houthi considered the shameful position and continued disregard of most Arab and Islamic regimes for the tragedy of the Palestinian people to have consequences and penalties.

He pointed out that Yemeni military operations are continuing with missile bombardment to target ships linked to involved with Israeli enemy.

The leader of the revolution stated that the support operations this week were 12 operations targeting ships and were carried out with 58 ballistic missiles in the Red and Arab seas and the Gulf of Aden.

He explained that the military operations this time reached unprecedented extents, and three operations reached the Indian Ocean, with God's grace, and the total number of targeted ships reached 73 ships and barges.

He pointed out that last Friday, the million people turned out in 146 squares in various governorates and very huge numbers.

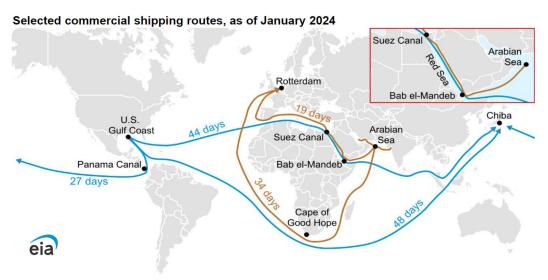
Al-Sayeed pointed out that the American-British aggression on Yemen will not affect the course of military operations in the Red and Arabian Seas.

He stated that American intransigence and escalation of aggression produces one result, which the expansion of the conflict and the cycle of war and events at the regional level in general.

M.M

FEBRUARY 1, 2024

Red Sea attacks increase shipping times and freight rates



Data source: U.S. Energy Information Administration using calculations from Vortexa
Note: Voyage time is calculated for laden Suezmax tankers traveling at 14 knots without extended chokepoint delays.

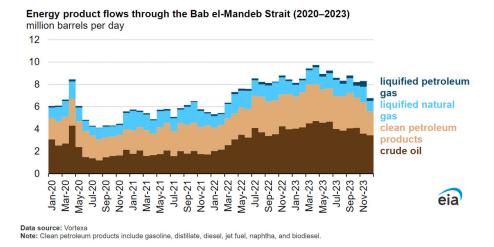
After Yemen-based Houthi militia attacks on commercial ships transiting the Red Sea started in November 2023, some vessels began opting to avoid the Bab el-Mandeb chokepoint—a narrow strait that borders the Yemeni coast and is the southern entrance to the Red Sea. Instead, they're choosing to take longer, more costly routes around the tip of Africa.

Ships transiting between Europe and Asia via the Suez Canal must pass through the Bab el-Mandeb Strait, which connects the Red Sea to the Gulf of Aden. The Bab el-Mandeb Strait is an <u>important oil and natural gas chokepoint</u>, accounting for 12% of seaborne oil trade and 8% of liquefied natural gas (LNG) trade in the first half of 2023. Major oil and natural gas companies that are <u>avoiding the Red Sea</u> include Equinor, which operates mostly natural gas carriers, and bp, which operates both oil and natural gas carriers. As of January 23, 2024, other major energy companies pausing Red Sea transits include <u>Euronav</u>, <u>QatarEnergy</u>, <u>Torm</u>, <u>Shell</u>, <u>and Reliance</u>.

Vessels that do not pass through the Suez Canal via the Bab el-Mandeb Strait and Red Sea can go around southern Africa via the Cape of Good Hope, but that route can add significant time to the voyage, depending on the ship's origin and its destination. A typical voyage from the Persian Gulf to the Amsterdam-Rotterdam-Antwerp petroleum trading hub (ARA) via the Suez Canal takes 19 days. If the ship takes the Cape of Good Hope route, it takes nearly 35 days to reach the ARA. For products leaving the U.S. Gulf Coast and heading toward Asia, vessels typically pass through the Panama Canal, which is nearly a month-long trip. Due to the ongoing drought and restrictions at the Panama Canal, more Very Large Gas Carriers (VLGCs), which primarily carry propane and butane, started going through the Suez Canal. Now some of these VLGCs are going around the Cape of Good Hope. A journey from the U.S. Gulf Coast to Chiba in Japan through the Suez Canal adds about 17 days and one through the Cape of Good Hope adds about 21 days, compared with going through the Panama Canal.

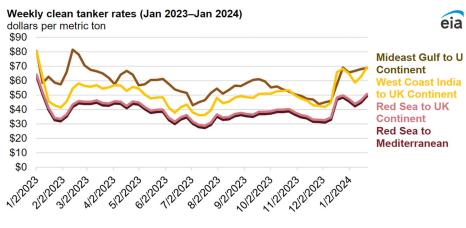
Longer routes put upward pressure on freight rates because of fuel costs and fewer available ships. A VLGC, for example, consumes about \$30,000 to \$35,000 worth of fuel per day if using high-sulfur bunker fuel at average 2023 prices. In addition to adding to fuel costs, a longer voyage requires more

ships to maintain the same delivery schedule, and fewer available ships contribute to higher tanker rates and costs.



After the attacks began in November, flows of oil, refined products, and natural gas passing through the Bab el-Mandeb Strait slowed. About 18% less crude oil flowed through the Bab el-Mandeb in December than on average from January to November 2023. Most crude oil trade that goes through the Bab el-Mandeb Strait leaves Russia and Iraq en route to Asia and the Mediterranean, respectively. Clean petroleum product flows through the Bab el-Mandeb Strait were 30% lower in December than the rest of 2023. The majority of petroleum product trade leaves Saudi Arabia and India bound for Europe and leaves Russia bound for Asia.

In December, 24% less LNG and 1% more liquefied petroleum gas (LPG) were traded globally compared with the rest of 2023. Vessel restrictions at the Panama Canal due to a drought are causing more VLGCs leaving from the United States to head east toward either the Suez Canal or the Cape of Good Hope. LPG flows through the Bab el-Mandeb increased by 59% in 2023 compared with 2022 because water conservation efforts at the Panama Canal began in January 2023, causing delays and higher costs for VLGCs. The Combined Maritime Forces, a partnership representing 39 nations, warned ships to avoid the Bab el-Mandeb Strait on January 12, which will likely reduce passages through January 2024.



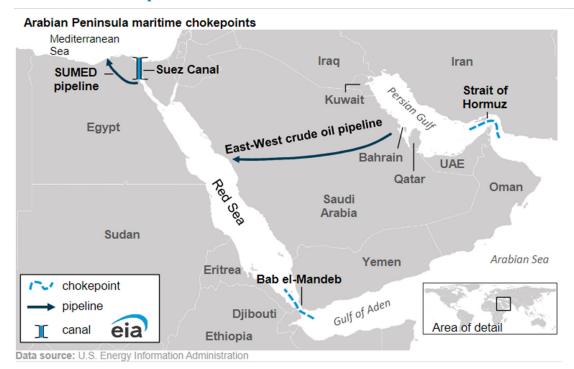
Data source: Argus Freight

Note: Rates are for long-range 1 tankers, except the Mideast Gulf to UK Continent rates, which are for medium-range tankers

Clean petroleum product tanker rates for routes that cross the Bab el-Mandeb Strait and Suez Canal increased in December 2023 because of the ongoing conflict in the Red Sea. Because routes going through the Red Sea have elevated <u>risk insurance premiums</u>, these costs are passed on to tanker rates. For the four tanker rates that pass through the Red Sea, the average increase was 20% in December compared with November, according to Argus Freight. <u>Long-range 1</u> tankers traveling from the western coast of India to the UK Continent increased the most (23%), and tankers traveling from the Mideast Gulf to the UK Continent increased the least (16%). Rates for dirty tankers, which mostly transport crude oil, have been relatively unchanged from the elevated prices in November. Brent <u>crude oil spot prices</u> for the week ending November 17, 2023, the week before attacks on ships in the Red Sea began, were \$82 per barrel (b). Since then, prices have traded in range, and they closed at \$79/b as of January 18, 2024.

Principal contributor: Josh Eiermann

Red Sea chokepoints are critical for international oil and natural gas flows



The Suez Canal, the SUMED pipeline, and the Bab el-Mandeb Strait are strategic routes for Persian Gulf oil and natural gas shipments to Europe and North America. Total oil shipments via these routes accounted for about 12% of total seaborne-traded oil in the first half of 2023, and liquefied natural gas (LNG) shipments accounted for about 8% of worldwide LNG trade.

The Suez Canal and SUMED pipeline are located in Egypt and connect the Red Sea with the Mediterranean Sea. The SUMED pipeline transports crude oil north through Egypt and has a capacity of 2.5 million barrels per day. The Bab el-Mandeb Strait is between the Horn of Africa and the Middle East, connecting the Red Sea to the Gulf of Aden and Arabian Sea. Most exports of petroleum and natural gas from the Persian Gulf to Europe and North America pass through multiple chokepoints, including the Suez Canal or the SUMED pipeline and both the Bab el-Mandeb and the Strait of Hormuz.

Volume of crude oil, condensate, and petroleum products transported through the Suez Canal, SUMED pipeline, and Bab el-Mandeb Strait (2018-1H23) million barrels per day

	2018	2019	2020	2021	2022	1H23
Total oil flows through Suez Canal and SUMED pipeline	6.4	6.2	5.3	5.1	7.2	9.2
crude oil and condensate	3.4	3.1	2.6	2.2	3.6	4.9
petroleum products	3.0	3.1	2.6	2.9	3.6	4.3
LNG flows through Suez Canal (billion cubic feet per day)	3.3	4.1	3.7	4.5	4.5	4.1
Total oil flows through Bab el-Mandeb Strait	6.1	5.9	5.0	4.9	7.1	8.8
crude oil and condensate	3.0	2.7	2.2	1.9	3.3	4.5
petroleum products	3.1	3.2	2.8	3.1	3.8	4.4
LNG flows through Bab el-Mandeb Strait (billion cubic feet per day)	3.1	3.9	3.7	4.5	4.5	4.1

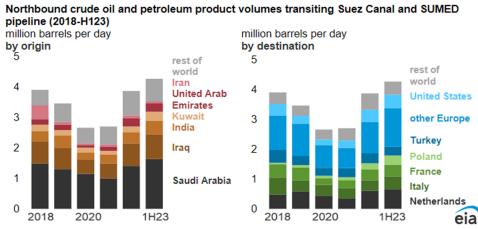
Data source: U.S. Energy Information Administration analysis based on Vortexa tanker tracking

Note: LNG=liquefied natural gas 1H23=first half of 2023

Oil shipments

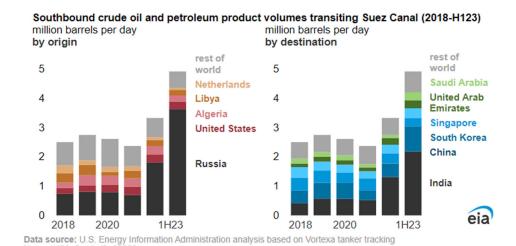
Iran reduced all exports from Iran, including those through the Suez Canal. In addition, less crude oil and oil products from Middle East producers moved through the Suez Canal because Europe imported less oil from the Middle East and more from the United States. The COVID-19 pandemic further reduced flows through the Suez Canal because of slowing global oil demand.

In the first half of 2023, northbound crude oil flowing through the Suez Canal and SUMED pipeline had increased by more than 60% from 2020, as demand in Europe and the United States rose from pandemic-induced lows. Also, Western sanctions on Russia's oil beginning in early 2022 shifted global trade patterns, leading Europe to import more oil from the Middle East via the Suez Canal and SUMED pipeline and less from Russia.



Data source: U.S. Energy Information Administration analysis based on Vortexa tanker tracking

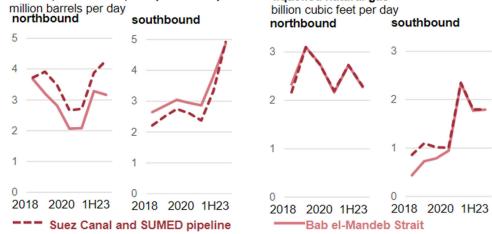
Southbound shipments through the Suez Canal rose significantly between 2021 and 2023, largely because of Western sanctions on Russia's oil exports. Oil exports from Russia accounted for 74% of Suez southbound oil traffic in the first half of 2023, up from 30% in 2021. Most of those export volumes were destined for India and China, which imported mostly crude oil from Russia. The Middle East, primarily Saudi Arabia and the United Arab Emirates, increased imports of refined oil products from Russia in 2022 and the first half of 2023 in order to generate electric power or to store or re-export.



LNG shipments

LNG flows through the Suez Canal in both directions rose to a combined peak in 2021 and 2022 of 4.5 billion cubic feet per day (Bcf/d) before total flows declined in the first half of 2023 to 4.1 Bcf/d. Southbound LNG flows more than doubled from 2020 to 2021, mainly driven by growing exports from the United States and Egypt heading to Asia. In 2022 and the first half of 2023, southbound LNG volumes via the Suez Canal declined as U.S. and Egyptian LNG exports both favored European destinations over Asian markets, supplanting some of the natural gas exports that Russia historically sent to Europe. Most of the variation in northbound volumes reflects changes in Qatar's exports to Europe (via the Suez Canal) compared with Asia. Qatar also sent more LNG to Europe in 2022 to replace some volumes from Russia, increasing northbound flows.

Flows through the Suez Canal, SUMED pipeline, and the Bab el-Mandeb Strait crude oil, condensate, and petroleum products liquefied natural gas



Data source: U.S. Energy Information Administration analysis based on Vortexa tanker tracking **Note:** 1H23=first half of 2023.

Data source: U.S. Energy Information

Although oil flow trends through the Bab al-Mandeb Strait are similar to those of the Suez Canal, more oil exits the Red Sea (northbound via the Suez Canal and southbound via the Bab el-Mandeb Strait) than enters the Red Sea through these chokepoints. Saudi Arabia transports some crude oil from the Persian Gulf via pipeline to the Red Sea for export mostly to Europe. LNG flows through the Bab el-Mandeb Strait have matched those in the Suez Canal over the last few years because the few LNG import terminals in the Red Sea have been used less.

Principal contributors: Candace Dunn, Justine Barden

By Bloomberg News

(Bloomberg) -- In China, electric vehicles with built-in fridges and even in-car karaoke systems are considered passé.

Instead, carmakers are turning to increasingly novel add-ons from beds to cooktops to boost sluggish sales.

Top EV makers are facing a slowdown in demand at home as consumers curb spending, just as geopolitical tensions with

major Western economies cloud the outlook for exports. Meanwhile for smaller players, the ability to think creatively is core to their survival, with the cut-throat industry bracing for a

likely wave of consolidation as China looks to rein in the excesses left behind by years of generous subsidies.

Read More: Li Auto CEO Calls for Industry M&A as China EV Demand Softens

The high-tech offerings also highlight the risk for Western manufacturers should they fall even further behind in carving out market share in the world's biggest auto market. China-made vehicles are viewed by local customers as better suited to their extensive technology demands and preference for high levels of connectivity.

"While legacy automakers still only focus on the drivability of a car, Chinese companies are not satisfied with that," Wang Binggang, an Xpeng Inc. salesperson, said in a showroom in central Shanghai. "We are extending the possibilities to all kinds of living and recreational scenarios, and that's part of the reason why customers love e-cars these days."

Here's a look at some of the offbeat offerings now available in China:

1. Sleeping Kits

Just one click on the in-car display in Xpeng's G9, an SUV with a starting price at 263,900 yuan (\$36,700), and it turns into a bed that comfortably sleeps two people. Drivers who install the so-called sleeping kit feature are able to make both front and back seats lay completely flat, then watch as a double-size air mattress unfolds and is automatically inflated. The company is looking to muscle in on China's increasingly popular camping culture, but the car may also prove a hit with desk jockeys enduring the country's notoriously grueling office hours and looking for a place to nap. The feature was an unexpected savior for some families during February's Lunar New Year holiday. Long waits at charging stations, traffic jams that lasted for hours and snowstorms that left tens of thousands of drivers stranded across the country saw many in sudden need of a safe place to sleep.

2. In Sync Heartbeat

One of the most notable features of an electric vehicle is how much quieter, and smoother to accelerate, it is compared with a combustion-engine car. But the downside is that it can cause or worsen motion sickness. And the way an EV's brakes work can also add to the feeling of imbalance for some drivers and passengers.

Hangzhou-based Geely Automobile Holdings Ltd. says it has solved that problem in its Galaxy E8 electric sedan, which vibrates at 1.25 hertz — the same as a human heartbeat — when the car is driving on undulating terrain.

The car, which went on sale on Jan. 5 and starts at \$24,450, also has a braking system that minimizes the jerking sensation often noticed by people when they first start driving an EV.

3. Tailgate Ready

Li Auto Inc.'s L-Series has become one of the most popular SUV ranges in China, offering spacious interiors, extended-range capabilities and in-built massagers in its seats. While that's seen sales boom, it's also given rise to challengers looking to make their own mark among the country's middle-class families. That includes Rox Motor Tech, a startup established in 2021 by the founder of a robot vacuum maker, which is looking to win over lovers of the outdoors. Its first production model, the Polestones 01, includes a rear-mounted camping-style kitchen with an induction cooker and water dispenser. It's also got a sun canopy that attaches to the roof, which the carmaker says can be assembled, or taken down and stowed away, in minutes. The car costs \$48,700.

4. Drones

BYD Co., the world's largest EV manufacturer, is looking to make its premium \$153,000 Yangwang U8 more enticing for tech fans.

Its partnership with Shenzhen-based drone giant DJI allows a small craft to launch from and land on a retractable case mounted to the roof and it can even fly back to dock once the car reaches its final destination. Movements are controlled on the in-car display screen, and an in-built system can charge the drone's three batteries and swap cells when the power runs down. The drone is programmed to follow the car's route and captures high-definition images. That allows drivers to obtain real-time aerial views of their surrounds, while they can also produce short videos on their in-car screen.

5. In-Car Gaming

In-car gaming is an increasingly widespread offering. Tesla Inc. added video game platform Steam into its system in 2022, while Li Auto allows drivers and passengers to connect their

Nintendo Co.'s Switch to the car's system.

BYD has taken it one step further. Its redesigned steering wheel can be detached, allowing drivers to use it in conjunction with the car's pedals to play video games on the in-car display. While the technology has proved popular, it's also given rise to concerns that it's distracting and could cause crashes. The US National Highway Traffic Safety Administration last year closed a probe into Tesla's in-vehicle game-play functionality after the automaker disabled the "Passenger Play" feature. Chinese EV makers have implemented restrictions, including only allowing games to be played when a car is stationary with the engine off.

What's Next?

The best, or quirkiest, are yet to come.

Geely and its EV brand Zeekr applied for a patent for a vehicle-mounted fishing system that includes a line and hook. Location sensors on the car will give the driver information on the depth and flow rate of nearby bodies of water, as well as historical data to help determine the best fishing spot. A device will enable long-distance and more precise casting and, when a fish bites, the vehicle will reel it in.

Meanwhile, SAIC Corp.'s IM Motors has filed an intellectual property application for an in-car plant-care system, which will collect rain from the roof and water generated by the vehicle's cooling system. Software will recognize different plant varieties and calculate the best timing and volume of water to sustain them.

The ambitions signal automakers' emphasis on innovation will continue even in the face of an uncertain consumer demand outlook.

"In the EV era, China is attempting to redefine premium," said Bill Russo, founder and chief executive officer of Shanghai-based advisory firm Automobility. "They may come up with some real off-the-wall ideas, but that's what experimentation is all about."

--With assistance from Linda Lew and Danny Lee.

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China Home Price Slump Persists Even as Support Mounts (1)

2024-03-15 03:56:17.414 GMT

By Bloomberg News

(Bloomberg) -- China's home prices continued to fall in February, underscoring the challenge for authorities as they step up efforts to salvage the beleaguered market.

Declines in prices of both new and used homes deepened in February from a year earlier, even as they eased slightly on a month-on-month basis, National Bureau of Statistics figures showed Friday.

Arresting the slump in values is key to reviving homebuyer demand, which would help developers by providing much-needed cash to repay debts. The liquidity crisis has reached another low as state-backed China Vanke Co., the country's second-largest developer by sales, fights to avoid its first-ever default.

New-home prices in 70 cities, excluding state-subsidized housing, fell 1.9% from a year earlier, steeper than January's 1.2% drop. They slid 0.36% from January, when they retreated 0.37%.

Existing-home prices dropped 5.2% year on year, worsening from 4.5% in January and falling in all 70 cities. They declined 0.62% month on month, improving from a 0.68% decrease in January.



More details on the price report here

Declines in prices of new homes are "showing no signs of ebbing," said Kelvin Lam, a senior economist at Pantheon Macroeconomics. "The second-hand market continues to take a hammering."

China's three-year housing slump is dragging on growth in the world's second-largest economy. The price declines are also adding to deflationary pressure that's weighing on demand. Read more: China Economy Likely Off to Muted Start as 5% GDP Goal in Focus

Chinese authorities have been stepping up support for the housing market by urging banks to provide financing for developers and allowing local governments to ease rules for homebuyers. That has yet to revive new-home sales, which slumped 60% last month from a year earlier, private data show. China Vanke posted its biggest sales decline in six years. The nation's housing minister said last week that China still faces a "severe task" to stabilize the market, acknowledging the current difficulty is related to issues with capital. Country Garden Holdings Co. faces a liquidation petition in Hong Kong, while China Evergrande Group was ordered to wind up in January.

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More on China property:

China Reiterates Stance That Homes Are Not for Speculation China Sets GDP Goal That Needs Policy Support 'From All Fronts' China Home Sales Drought Persists Despite Mounting Support *T

Policymakers have increased pressure on banks to boost their property loans through so-called white lists, as developers struggle to complete projects. At the end of February, state-owned lenders had approved more than 200 billion yuan (\$28 billion) of loans for property works eligible for support.

In another blow to developers, homebuyers have been shifting to the second-hand market due to falling prices and doubts over the timeline for the delivery of new apartments. Existing-home sales overtook new properties by area for the first time last year.

Bloomberg Economics analysis: Three Years Into Slump, Property Still Pricey

Market watchers caution that a sustainable sales rebound hinges on stronger policies. Now that the central government has given local officials ample autonomy, they should "bear the responsibility" to tweak rules to stabilize the market, housing minister Ni Hong said last week.

"Further supportive policies may still be needed," said Lynn Song, chief economist for Greater China at ING Bank. "Establishing a trough for house prices would go a long way towards stabilizing sentiment."

Existing property values edged up in only two cities in February from a month earlier, the statistics bureau figures showed. New-home prices gained in eight cities, fewer than 11 a month earlier.

More cities may see price gains in the new-home market in March, which is typically a busy season for sales, said Yan Yuejin, research director at E-house China Research and Development Institute. Oversupply may have eased after developers offered more discounts in February to boost sales

during the Lunar New Year holiday, he said.

Some tier-2 cities have started to fully remove homebuying restrictions, raising expectations for more large cities to follow suit. Hangzhou no longer reviews buyers' eligibility when they purchase pre-owned homes, state media reported this week.

--With assistance from Yujing Liu and James Mayger.

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03/12/2024 10:40:37 [BN] Bloomberg News

OIL DEMAND MONITOR: India, Flying and Refineries Lighten Outlook

- Major consumer India shows strong year-on-year gains
- US refineries lift utilization rates before seasonal pick-up

By John Deane

(Bloomberg) -- Robust consumption of fuels in India, strong jet fuel usage and an uptick in US refinery runs are painting a more positive picture for oil demand than many market watchers had foreseen.

India's appetite for fuels jumped by almost 6% year-on-year last month, with sizable increases in both diesel and gasoline sales. Total utilization in the world's third-biggest oil user is running at a multi-year seasonal high, provisional government figures show.

"India is roaring back – I think folks overlook the role of India and Indian demand," Bob McNally, founder and president of Rapidan Energy Advisors said in a recent Bloomberg Television interview. By the middle of this decade there will be "a big bull cycle in oil prices" driven by higher demand, US production plateauing, and Saudi Arabia putting spare capacity back into the market, he added.

Indian oil demand growth was "very strong" early in the year, Saad Rahim, Trafigura Group's chief economist, told Bloomberg in a separate interview, while there are also "signs of life" in the global manufacturing and petrochemicals sectors.

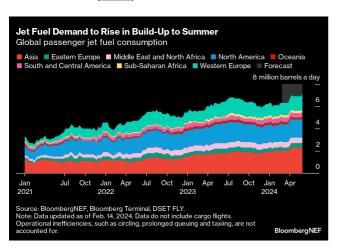


India's oil demand shows early-year strength

Jet fuel was among the products showing solid year-on-year consumption gains in the Indian data, one of many regions in which aviation has been flashing signs of strength.

Flightradar24 data shows global air traffic comfortably above year-ago and pre-pandemic levels, while OAG Aviation pegs seat capacity above 2023 levels and within a fraction of the pre-Covid era. In the US, airport passenger throughput similarly topped those levels, according to data from the Transportation Security Administration compiled by Bloomberg. London's Heathrow Airport said that last month it saw a record number of passengers for any February with strong half-term traffic.

Global jet fuel consumption is forecast to grow from 6.3 million barrels a day in March to 6.9 million in May, in line with seasonal trends as the ramp-up to the summer travel period begins, BloombergNEF estimates.

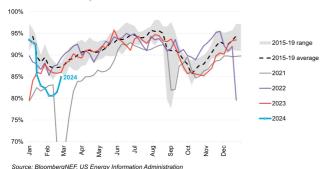


In another positive sign for demand, US fuelmakers appear to be getting ready to run hard ahead of the summer driving season. According to the US Energy Information Administration, nationwide refinery utilization jumped for the second straight week in the latest figures, this time by 3.4 percentage points – putting it just shy of the 85% mark.

Elsewhere, the ramp-up of new refineries in Mexico and Nigeria is poised to tilt the oil market into a deficit during the summer in the Western Hemisphere, ESAI Energy said in a report.

Read More: US Refinery Rates Pick Up the Pace as Spring Nears: BNEF Chart

US nationwide refinery utilization, seasonal



In its latest monthly report released earlier Tuesday, the Organization of the Petroleum Exporting Countries kept forecasts for world oil demand largely unchanged for this year and next, projecting that consumption will increase by 2.2 million barrels a day in 2024 to a record 104.5 million a day. Oil traders will look for further clues about the trajectory for demand when the EIA releases its Short-Term Energy Outlook, or STEO, later, while the International Energy Agency will publish its equivalent report on Thursday.

Read More: OPEC Oil Supply Cuts Stall as Iraq Keeps Pumping Above Quota

The world's appetite for oil does face headwinds in the longer term, though. Demand in China – the biggest importer – has entered a low-growth phase as decarbonization starts to eat into consumption of fossil fuels, according to the country's biggest energy producer. Greater take-up of electric vehicles, as well as trucks powered by liquefied natural gas, will chip away at the country's gasoline and diesel consumption, Lu Ruquan, president of China National Petroleum Corp.'s Economics & Technology Research Institute, said in an interview with Bloomberg Television.

The Bloomberg oil demand monitor uses a range of high-frequency data to help identify emerging trends. Following are the latest indicators. The first table shows fuel demand, the second shows air travel globally and the third refinery activity.

		%vs	%vs	% vs	% vs	% vs	%		Latest		
		2023	2022	2021	2020	2019	m/m		Date	Latest	
Demand Measure	Location							Freq		Value	Source
Gasoline product supplied	US	+5.3	+0.6	+11	-1.9	-0.5	+2.3	w	March 1	9.01m b/d	EIA
Distillates product supplied	US	+16	-11	+7.6	+4	-1.7	+6.7	w	March 1	4.07m b/d	EIA
Jet fuel product supplied	US	-0.7	+21	+28	-4	-3.4	+2.2	w	March 1	1.64m b/d	EIA
Total oil products supplied	US	+6.5	-4.3	+8.2	-4.6	-0.9	+0.3	w	March 1	20.29m b/d	EIA
Gasoline (petrol) avg sales per filling station	UK	+2.2	-3.3	+45	-6.9	-0.8	+3.6	w	Week to March 3	7,131 liters/day	BEIS
Diesel avg sales per station	UK	-2.9	-13	+7.3	-19	-15	+2.8	W	Week to March 3	8,807	BEIS
Total road fuels sales per station	UK	-0.7	-9.1	+21	-14	-9.4	+3.1	w	Week to March 3	15,938	BEIS
Car use	UK	+1.1	+3.3	+52		-7	+2.2	m	Feb. 12	93	DfT
Heavy goods vehicle use	UK	-1	-1.9	+2		+2	unch.	m	Feb. 12	102	DfT
All motor vehicle use index	UK	+1	+4.3	+44		-2	+2.1	m	Feb. 12	98	DfT
Diesel sales	India	+6.2					+0.1	m	February	7.44m tons	PPAC
Gasoline sales	India	+8.9					-2.5	m	February	3.02m tons	PPAC
Jet fuel sales	India	+12					-1.7	m	February	704k tons	PPAC

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LPG sales	India	+8.5				-3.9	m	February	2.59m	PPAC
Total oil products	India	+5.7				-1.6	m	February	19.72m	PPAC
Gasoline deliveries	Spain	+12				-0.8		February	tons 508k m3	Exolum
Diesel (and heating oil) deliveries	Spain	-5.7				-5		February	2 1714	Exolum
Jet fuel deliveries	·	+14				-3.7		February		•
	Spain							•	3 1.45k	Exolum
Total oil products deliveries	Spain	-0.5				-4.3	m	February	m3	Exolum
Naphtha	Germany	-24			-25	-7.2	m	November	747k tons	BAFA
Gasoline	Germany	-0.2			-2.1	-7.8	m	November	1.41m tons	BAFA
Diesel	Germany	-1.5			-5.4	+3.2	m	November	3m tons	BAFA
Heating oil	Germany	-0.1			-13	+1.7	m	November	1.05m tons	BAFA
LPG	Germany	-22			-32	+1.6	m	November	188k tons	BAFA
Jet fuel	Germany	+12			+0.5	-14	m	November	766k tons	BAFA
Total oil product sales	Germany	-2.5			-11	-2.3	m	November	7.52m tons	BAFA
Road fuel sales	France	-1.5		-5.2		-3	m	January	3.8 m3	UFIP
Gasoline sales	France	+5.4					m	January	n/a	UFIP
Road diesel sales	France	-4					m	January	n/a	UFIP
Jet fuel sales	France	+3.5		-12		-9	m	January	586k m3	UFIP
All petroleum products sales	France	+1				-0.5	m	January	4.4m tons	UFIP
All vehicles traffic	Italy	+1				+3	m	February	n/a	Anas
Heavy vehicle traffic	Italy	+4				+10	m	February	n/a	Anas
Gasoline sales	Italy	+8.6			+12	-4	m	January	634k tons	Energy Ministry
Transport diesel sales	Italy	+11			-4.9	-0.5	m	January	1.87m tons	Energy Ministry
Diesel/gasoil sales	Italy	+11			-8	-6	m	January	2.01m tons	Energy Ministry
LPG sales	Italy	+9.5			-8.5	+9	m	January	333k tons	Energy Ministry
Jet fuel sales	Italy	+24			-4	-14	m	January	314k tons	Energy Ministry
Total oil product sales	Italy	+8.1			-7.5	-4	m	January	3.96m tons	Energy Ministry
Gasoline consumption	Portugal	+11 +28	+63	+9.2	+7.8	-3.6	m	January	93,376 tons	ENSE
Diesel consumption	Portugal	+1.1 +12	+26	+0.3	-5	-1.7	m	January	399,184 tons	ENSE
Jet fuel consumption	Portugal	+4.1 +48	+242	+9.5	+14	-7.1	m	January	121,631 tons	ENSE
% change in toll roads kms traveled	France	-0.3					m	February	n/a	Mundys
% change in toll roads kms traveled	Italy	+5.2					m	February	n/a	Mundys
% change in toll roads kms traveled	Spain	+9					m	February	n/a	Mundys
% change in toll roads kms traveled	Brazil	+7.6					m	February	n/a	Mundys
% change in toll roads kms traveled	Chile	-5.2					m	February	n/a	Mundys
% change in toll roads kms traveled	Mexico	+6.3					m	February	n/a	Mundys

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Notes: Click here for a PDF with more information on sources, methods. The frequency column shows w for data updated weekly, 2/m for twice a month and m for monthly.

Congestion:

- READ: Road Traffic Indicators: China Extends Its Surge
- NOTE: Due to ongoing issues with data feeds, this issue omits the table showing BNEF calculations of road congestion changes based on TomTom data. We are looking into potential alternative approaches.

Air Travel:

					vs					Latest	Latest	
Measure	Location	vs 2023	vs 2022	vs 2021	2020	vs 2019	m/m	w/w	Freq.	Date	Value	Source
				chan	ges shov	wn as %						
All flights	Worldwide	+6.5	+11	+26	+14	+18	+5.8	+5.6	d	March 11	203,124	Flightradar24
Commercial flights	Worldwide	+11	+30	+67	+18	+10	+1.8	+2	d	March 11	120,576	Flightradar24
Seat capacity per month	Worldwide	+7.2	+29	+83	+11	-0.6		-0.1	w	March 11 week	105.8m	OAG
Air traffic (flights)	Europe					-8	+7.3	+0.1	d	March 11	26,513	Eurocontrol
Airline passenger throughput (7-day avg)	US	+5	+21	+121	+24	+4	+16	+2	w	March 10	2.42m	TSA
Air passenger traffic per month	China	+44	+94	+90	+13	+7.3	+13		m	January	57.3m	CAAC
Heathrow airport passengers	UK	+12	+102	+1,157	+6.5	+5.7	-3.3		m	February	5.8m	Heathrow. See related story
Rome % change in passengers carried	Italy	+31				+4.7			m	February	n/a	Mundys

Note: Comparisons versus 2019 are a better measure of a return to normal for most nations, rather than y/y comparisons.

Note: FlightRadar24 data shown above, and comparisons thereof, all use 7-day moving averages, except for w/w which uses single day data.

Refineries:

							Latest as		
Measure	Location	vs 2023	vs 2022	vs 2021	vs 2019	m/m chg	of Date	Latest Value	Source
				Changes a	re in ppt un	less noted			
								15.27m	
Crude intake	US	+2	-0.7	+54	-4.5	+2.9	March 1	b/d	EIA
Utilization	US	-1.1	-4.4	+29	-2.6	+2.5	March 1	84.9%	EIA
Utilization	US Gulf	-1.6	-6.5	+44	-4.3	+8.2	March 1	85.3%	EIA
Utilization	US East	+1.3	-6.3	+8.6	+12	-7.6	March 1	79.3%	EIA
Utilization	US Midwest	-2.6	-1.2	+17	+2.6	-6.5	March 1	88.6%	EIA
Utilization (indep. refs)	Shandong, China	-11	-2	-20	-13	-3	March 8	53.54%	Oilchem

Bloomberg News Story

Note: US refinery data is weekly. Changes are shown in percentages for the row on crude intake, while refinery utilization changes are shown in percentage points.

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- --With assistance from Prejula Prem, Julian Lee, Vonnie Quinn, Rakesh Sharma, Grant Smith and Anna Edwards.

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U.S. Tornadoes: Why This Is The Strangest Map I've Seen In 2024

By Jonathan Erdman 24 hours ago



At a Glance

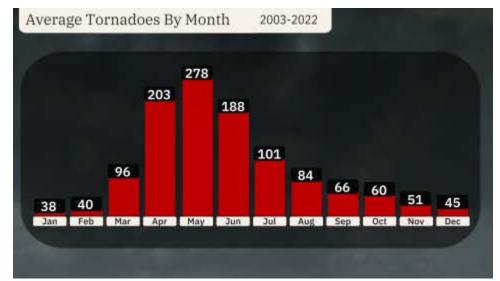
- This year's tornadoes have had several unusual qualities.
- First up, they've been unusually numerous for winter in parts of the Midwest.
- That's been fueled by record warmth in February and March.
- There have been fewer than usual for winter in the Deep South.
- That's typical of a stronger El Niño.

There's been no shortage of strange weather recently. From the nation's record warmest winter, to the least Great Lakes ice cover, to record warm North Atlantic Ocean water for the time of year, and the planet's ninth straight record warm month, 2024 has gotten off to a weird start.

But one weather map really grabbed my attention recently. Before we show it, let's first briefly lay out some context.

Winter tornadoes are usually the fewest of any time of year. January and February typically have the two lowest tornado counts of any months in the U.S., as the graph below shows.

That's because warm and humid surface air is needed for the severe thunderstorms that spawn the large majority of tornadoes. In winter, cold, dry air usually dominates, taking much of the country out of the threat.



(Data: NOAA/NWS/SPC)

When they do happen, it's usually in the Deep South. When warm and humid air does intrude into the U.S. in winter, it's usually over the Deep South, particularly along the Gulf Coast. This plus the active winter jet stream can provide the favorable environment for severe thunderstorms and tornadoes.



Average tornado risk area in February, based on 1982-2011 climatology. (Data: NOAA/NWS/SPC)

Now, about that strange map. Below is a plot of both preliminary reports and confirmed tornadoes in 2024 through the morning of March 12, compiled by NOAA's Storm Prediction Center.

As you'd expect for the first two-plus months of the year, the map isn't overly busy. But here's what's odd about it:



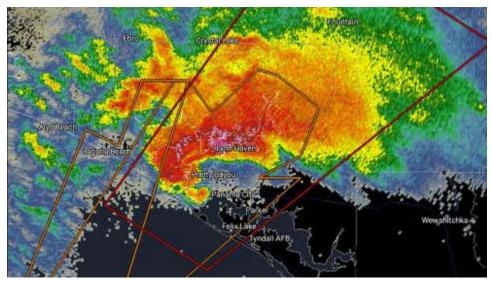
It's not blank in the Midwest. In fact, it seems there were almost as many tornadoes over the Midwest as the South, so far.

Almost all of those happened in February. It started with Wisconsin's first February tornadoes since before statehood on Feb. 8. Then, fueled by record February and winter warmth before month's end, 23 tornadoes touched down from northern Illinois into Lower Michigan, Ohio and New York state from Feb. 27-28. That included southeast Michigan's second February tornado on record, an EF2 at that.

Since late February, it's been harder to get snow to stay on the ground for more than a day in the Great Lakes than to get severe thunderstorms.

There's not as many in the Deep South. While there have been some notable events, such as Panama City, Florida, in January, there haven't been many tornadoes away from the coast in the South, so far.

That lower South winter tornado count is typical for an El Niño relative to a La Niña winter, according to research, except for the Florida Peninsula. Recent years have had significant South winter tornado outbreaks, including January 2023, January 2020, January and February 2017.



Radar image of the Panama City, Florida, tornado of Jan. 9, 2024. The tornado warning that was in effect was shown by the red-outlined polygon. (NWS-Tallahassee, Florida; RadarScope)

The most photogenic tornado was in Oregon. You may have noticed one tornado symbol on the map above over northeast Oregon. On March 5, multiple ghostly white tornadoes known as landspouts were captured on video near Milton-Freewater, Oregon. No damage was reported as they remained over open country.

There were two other landspouts that day, one in Texas south of Dallas, and another in northwest Ohio which damaged a home.

Landspout tornadoes aren't associated with supercell thunderstorms, but occur when a growing thunderstorm's rising air vertically stretches spin along a boundary of convergent winds. Think of them as the land equivalent of waterspouts. They're typically more common from late spring into summer in the U.S., not so much in early March.

Jonathan Erdman is a senior meteorologist at weather.com and has been covering national and international weather since 1996. His lifelong love of meteorology began with a close encounter with a tornado as a child in Wisconsin. He completed a Bachelor's degree in physics at the University of Wisconsin-Madison, then a Master's degree working with dual-polarization radar and lightning data at Colorado State University. Extreme and bizarre weather are his favorite topics. Reach out to him on X (formerly Twitter), Threads, Facebook and Bluesky.

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https://www.gov.uk/government/news/energy-secretary-takes-action-to-reinforce-uk-energy-supply

Press release

Energy Secretary takes action to reinforce UK energy supply

Energy Security Secretary to set out strategy for gas in speech and take common-sense action to future proof the country's long term energy security.

From: Department for Energy Security and Net Zero and The Rt Hon Claire Coutinho MP

Published 12 March 2024



Energy Secretary takes decisive action to reinforce UK energy supply

The Energy Secretary has taken a common-sense decision to shore up the UK's energy supply as the nation transitions to net zero.

In a plan set out today, the Government has committed to support the building of new gas power stations to maintain a safe and reliable energy source for days when the weather forecast doesn't power up renewables.

No other major economy has done more when it comes to cutting emissions. The UK is the first major economy to cut its emissions by half since 1990, compared to the EU who have cut emissions by 30%, the US not at all and China's emissions are up by 300%.

This is the latest step in efforts to reach net zero in a sustainable, pragmatic way that rids the UK of the need to rely on foreign dictators like Putin. The UK led the way on banning imports of Russian gas and is delivering new sources of home-grown energy: with new nuclear power plants, record investment in renewables, and new oil and gas licences in the North Sea.

The need for continued unabated gas generation into the 2030s as a back-up to ensure energy security and reduce costs has been recognised by the Climate Change Committee. Today's plan keeps the UK on track to meet its net zero targets.

Prime Minister, Rishi Sunak, said:

Our record on net zero speaks for itself – the latest stats show that we're already halfway there, with greenhouse gas emissions 50% lower than in 1990.

But we need to reach our 2035 goals in a sustainable way that doesn't leave people without energy on a cloudy, windless day.

I will not gamble with our energy security. I will make the tough decisions so that no matter what scenario we face, we can always power Britain from Britain.

Energy Security Secretary, Claire Coutinho, is expected to say:

There are no two ways about it. Without gas backing up renewables, we face the genuine prospect of blackouts. Other countries in recent years have been so threatened by supply constraints that they have been forced back to coal.

There are no easy solutions in energy, only trade-offs. If countries are forced to choose between clean energy and keeping citizens safe and warm, believe me they'll choose to keep the lights on.

We will not let ourselves be put in that position. And so, as we continue to move towards clean energy, we must be realistic.

As part of the second consultation on the Review of Electricity Market Arrangements, the Energy Secretary has set out a plan to boost gas power capacity. Firstly, by broadening existing laws requiring new gas plants to be built net-zero ready and able to convert to low carbon alternatives in the future such as carbon capture and hydrogen to power. Secondly, these gas power plants will run less frequently as the UK continues to roll out other low carbon technologies. Finally, this is in line with wider government plans to deliver net zero whilst keeping costs down for billpayers.

Electricity is powering a growing share of the economy. This year the UK registered the one-millionth electric vehicle and applications to the electric heat pump scheme are up 50% year-on-year.

The UK has built the five largest operational offshore wind farm projects in the world, and the share of electricity coming from renewables has risen from 7% in 2010 to almost half today. That has allowed a phase-out of coal generation altogether, with the last major plant closing this year.

While the renewable share will increase in the years ahead, they aren't failsafe, and future supply can only be calculated based on estimation. That is why flexible power generation is needed, to keep electricity secure and reliable, acting as back-up generators to keep the lights on.

The consultation also includes proposals to reduce people's bills across the country. A significant proportion of the UK's energy is located away from areas of high demand: for example, a quarter of the UK's renewable energy is generated in Scotland. Different wholesale prices could better match supply and demand and bring down costs for people across the country. The reforms could save households £45 off their yearly energy bill and the government will consult on the proposals to deliver the long-term change the UK needs to make a brighter future for Britain, and improve economic and energy security for everyone.

Ms Coutinho is also expected to add:

From my time in this role, it is clear to me that we have entered a new era. It's an era in which energy can be weaponised against us. An era where our adversaries can inflict harm directly on British families and businesses through energy prices.

If we cannot retain control of energy prices, if we cannot protect families and businesses from the threat of future shocks, then we are not really secure. So, we must be hard-headed about the future of our energy system. We must put national interest over ideology.

This builds on wider measures to reduce energy bills, including improving access to cheaper deals. For example, some households could save up to £900 a year – nearly half a typical bill - through cheaper, off-peak energy tariffs, such as by charging an electric car at off-peak times. In addition, energy prices have recently fallen to their lowest level since the war began.

It is yet another step to put more cash in people's pockets – building on the Chancellor's historic budget delivered this week, which has slashed National Insurance Contributions: giving the average worker an extra £900 a year.

Jon Butterworth, CEO at National Gas, said:

We welcome today's announcement which will advance the electricity market arrangements review (REMA) in consultation with industry. Getting this right will play a critical role in our journey to net zero and help create a diverse, decarbonised energy system. Timely delivery of phase 2 and the review's conclusion, will provide industry with policy confidence and unlock crucial investment.

Today's announcement also states a requirement for unabated gas in the power system beyond 2030. Gas will continue to play an important role in keeping the lights on, acting as a bridge to a clean power system and complimenting the growth of renewables. In order to deliver a net zero power system, we must develop flexible power technologies including hydrogen, and gas with carbon capture and storage.

Kisha Couchman, Deputy Director at Energy UK, said:

With more of our power generated by a diverse range of clean energy sources and a growing role for flexibility, the energy system has continued to undergo significant change over recent years. We welcome the Government pressing ahead with ensuring our electricity markets are fit for the future and capable of attracting the billions of pounds of investment we need for power generation, storage, and network infrastructure.

The challenge is to bring forward changes to support this aim while also providing the certainty essential to bring forward long-term investment – so it's also right to look at the role that existing mechanisms can play.

Guy Newey, CEO at Energy Systems Catapult, said:

It is increasingly clear that the only way we can get to a net zero electricity system in time and without pushing up bills is to move to a market that reflects local supply and demand.

It is an essential step forward to see government proposing stronger locational signals in the wholesale market through zonal pricing and a strong push for a smarter energy system. While it is disappointing to see nodal pricing ruled out, improved locational signals will deliver significant benefits to consumers and opportunities for innovators.

The growing importance of electricity in the economy means security of supply is an essential partner of decarbonisation. Achieving security of supply means the rapid build-out of a raft of clean technologies as well as making our system as flexible as possible. And depending on how quickly we can build new renewables, nuclear, and other important technologies like Bioenergy Carbon Capture and Storage, it is also likely to require an ongoing role for rarely-used gas power plants to ensure security of supply in extreme weather events.

Delivering change at the pace and scale required means speeding up planning so that we can build new generation and transmission quickly, digitalising our energy system to make it more flexible, and fundamental reform to the power market.

James Waddell, Head of European Gas and Global LNG at Energy Aspects, said:

The UK and wider European power sector will over the coming years be dealing with increased intermittency of power generation because of the greater share of renewables within the energy mix. The electrification of the heating sector is also likely to significantly boost winter power demand relative to the summer meaning that technologies are required to manage that seasonal shift in demand.

Having enough dispatchable power generation from gas-fired and/or nuclear power plants to tackle periods of high power demand and low renewable generation over weeks or even months is essential to avoid significant price spikes and outages. Existing electricity storage solutions are only designed to handle much shorter mismatches of power supply and demand.

Dan Monzani, Managing Director, UK and Ireland at Aurora Energy Research, said:

We need urgent action to ensure energy security in a future net zero system. Well-designed market reform and accelerated network build would mean renewable electricity is able to meet more of our needs more often. The final few hours of energy demand each year will always be the hardest to decarbonise.

So we need to double down on firm low carbon technologies, like nuclear, carbon capture and long-duration storage but we also need to invest in maintaining reserve gas capacity. In a net zero system in 2035, we will need to run gas 90% less often but we still need to maintain two-thirds of the current gas capacity to ensure our energy needs are met at all times.

Alex Grant, Senior Vice President & UK Country Manager at Equinor said:

We welcome the UK's focus on energy security alongside energy transition in an increasingly challenging global energy context and are pleased to be supporting. A growing renewables-based electricity system will require market reform in order support the transition to net zero at lowest cost.

With Equinor's broad renewable energy portfolio in the UK including offshore wind and battery storage across the country, we welcome the publication of the 2nd REMA consultation and the focus on zonal pricing, which will help maintain investor confidence. We look forward to working with DESNZ and wider industry to support progression of these reforms.

A spokesperson for the Electricity System Operator said:

The ESO welcomes this important step forward in the Review of Electricity Market Arrangements. Establishing the right market incentives is essential to ensuring delivery of the clean power required to deliver affordable, clean power and maintain energy security. Locational pricing can deliver £15bn to £50bn in consumer savings, incentivise new industries such as green hydrogen, maximising benefits that can arise from decarbonisation of existing industry in Great Britain. We look forward to continuing to support Ofgem and the Department for Energy Security and Net Zero as the next stage of assessment of options for electricity market reform are assessed.

LDV Total Sales of PEV and HEV by Month (updated through February 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 VehiclesPHEV 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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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 23,421 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 <td< td=""><td>Sep-18</td><td>24,163</td><td>10,777</td><td></td><td>1,432,136</td></td<>	Sep-18	24,163	10,777		1,432,136
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	89,648	20,540	94,289	1,375,194
Apr-23	92,631	23,355	100,528	1,361,694
May-23	92,897	25,134	103,832	1,362,535
Jun-23	100,745	23,181	100,762	1,368,178
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	84,542	25,723	91,929	1,070,363
Feb-24	81,946	28,259	105,803	1,247,516



FOR IMMEDIATE RELEASE

U.S. Auto Dealer Sentiment Improves in Q1, but Current Market View Remains Weak as Profit Pressures Replace Inventory Woes

- The Q1 2024 Cox Automotive Dealer Sentiment Index shows an overall increase in current market sentiment, but the profitability index dropped to nearly an all-time low.
- With the new-vehicle inventory index hitting an all-time high in the first quarter, most franchised dealers see their inventory growing, not declining.
- Interest rates, the economy and market conditions remain the top concerns for U.S. auto dealers but improved compared to Q4 2023.

ATLANTA, March 13, 2024 – The Cox Automotive Dealer Sentiment Index (CADSI) shows that current market sentiment improved slightly in the first quarter compared to the fourth quarter of 2023, increasing from 40 to 42, but remains well below the 50 threshold, indicating most dealers see the current market as weak.

The survey's current market index is largely driven by profitability, customer traffic and costs. Of the three, profitability continues to weigh most heavily on both franchised and independent dealers, according to the latest report. At 33, the profitability index fell to its second-lowest score ever, behind only Q2 2020, at the height of the COVID-19 pandemic. After peaking at 60 in 2021, the profitability index has continued to decrease, hitting a post-pandemic low for the second straight quarter in Q1, indicating most dealers see profits as weak, not strong.

For franchised dealers, the profitability index has declined significantly from the first half of 2022, when the index was near a record high and above 80. Beginning in the second half of 2022, the index has dropped significantly and, in Q1 2024, hit 41 – the lowest point in the survey's history excluding Q2 2020.

"The vehicle market in the U.S. is shifting from a seller's market to a buyer's market, and dealers are feeling the pinch of tighter margins and higher costs," said Cox Automotive Chief Economist Jonathan Smoke. "After some highly profitable years for many dealers, 2024 will be a tough comparison. Dealer costs continue to grow and profitability per sale has dropped. As we often see in our surveys, spring is bringing some optimism, but dealers are clearly indicating the U.S. auto market is very different than it was just two years ago."

While the current market index, and many of the factors driving it, remains weak, the market outlook index improved significantly in Q1, jumping from 41 last quarter to 51 in Q1. The market outlook index, which queries dealers about expectations for the vehicle market three months from now, typically enjoys a 'spring bounce' as automobile dealers look to the spring selling season.

Vehicle Sales Environment Improves from Q4 But Remains Below Year-Ago Levels

According to U.S. auto dealers, the current sales environment for new and used vehicles has improved over last quarter but remains lower year over year. The new-vehicles sales index improved 1 point to 52, down from 57 one year ago. Likewise, the used-vehicle sales index increased 1 point to 40, but it is down from 44 a year ago and well below the long-term index average of 50. For franchised dealers, the used-vehicle sales

index held steady near a record low of 51 in Q1. For independent dealers, the used-vehicle sales index increased by 1 point but remains well below longer-term averages.

Dealers See Decline in Traffic and Profits

The overall traffic and profits indexes both declined from the previous quarter. The overall profits index hit an all-time high of 60 in Q3 2021 and has been sliding ever since. The overall profits index, at 37, is now at a new low point, excluding Q2 2020, when much of the U.S. economy was shut down. For franchised dealers, the profits index sunk to 51, down seven points quarter over quarter. The profits index for independent dealers at 32 marks the ninth consecutive quarter of a below-50 index reading.

Inventory Keeps Growing

The latest Cox Automotive Dealer Sentiment Index suggests the mildly improving sales environment is being driven at least in some part by higher inventory levels, with the industry's short-supply issues mostly in the rear-view mirror, particularly on the new-vehicle front.

The new-vehicle inventory index hit an all-time high of 75 in Q1, indicating that most franchised dealers see their inventory growing, not declining. The new-vehicle inventory index has shifted dramatically over the past two years. Now at a record high of 75, the index is up from 63 in Q1 2023 and 25 in Q1 2022, when low new-vehicle supply was among the most-cited factors holding back business. That is no longer the case.

Unlike new-vehicle supply, the index for used-vehicle inventory suggests a majority of dealers see used-vehicle inventory as declining, not growing. The index score of 45 is equal to last quarter and has improved from year-ago levels. Franchised dealers are slightly more optimistic about used-vehicle inventory, with an index score of 53, suggesting more dealers see used-vehicle inventory levels as growing, not declining. Independent dealers, on the other hand, see used-vehicle inventory as declining.

View of the Economy Improves but Remains Weak in Q1

According to the Q1 CADSI, dealers have a better view of the economy in Q1 than they did in Q4. The index score increased from 39 to 42. The index score is down one point from year-ago levels and down from 49 in Q1 2022, indicating a majority of dealers continue to see the economy as weak, not strong. The franchised dealers' score of 46 held steady quarter over quarter, whereas independent dealers saw an improvement, moving up from 36 to 40.

Electric Vehicle Sales Index Drops to Record Low

When asked how EV sales compare to one year ago, a majority of dealers say they are worse, not better. The index score for EV sales in Q1 dropped to 42, the lowest score since the question was added in the second quarter of 2021. The index score in Q1 was down from 48 in Q4 and lower than the 50 recorded in Q1 2023.

The outlook for EV sales tumbled as well, with the index score falling from 42 in Q4 to 36 in Q1. A year ago, when the index score was 53, a majority of auto dealers indicated that the EV market would be growing, not declining. That sentiment has changed. The Q1 score of 36 was the lowest score for the EV outlook index since the question was in 2021. In both indexes, independent dealers scored lower than franchised dealers. The gap between the two was very small for current EV sales, suggesting a consistent perspective across the board.

"The drop in dealer sentiment related to electric vehicles is understandable when we look at where EVs stand on the adoption continuum – shifting from early-adopter buyers to mainstream," said Stephanie Valdez Streaty. "In 2024, the Cox Automotive team expects the industry to fully acknowledge the fact that

the average consumer needs to be convinced on the merits of going electric, and many won't be easily persuaded. The EV market is likely to see a rise in the number of models, incentives, discounting, and advertising. However, selling more EVs will require more effort on the part of dealers."

High Interest Rates Continue to Hold Back Business

When asked about factors holding back business, Interest Rates, the Economy, and Market Conditions continue to be the top concerns for U.S. automobile dealers. All three factors, however, decreased compared to Q4 2023, with the Economy and Market Conditions decreasing significantly.

Interest Rates remain the top factor holding back business for both franchised and independent dealers, with 62% of dealers citing Interest Rates as the top factor in Q1, down from 65% in Q4 2023. In Q1 2022, only 5% of dealers indicated Interest Rates were holding back business. The Economy was identified by 55% of dealers, down significantly from 61% last quarter, while Market Conditions also fell significantly to 40% in Q1 from 48% in Q4. A year ago, Interest Rates and the Economy were also the top two factors holding back business, and Market Conditions was No. 4 on the list.

The Top 10 factors are:

Top Factors Holding Back the Business	Overall Rank	Q1 2024 Percentage	Q1 2023 Percentage
Interest Rates	1	62%	55%
Economy	2	55%	54%
Market Conditions	3	40%	42%
Political Climate	4	33%	25%
Expenses	5	32%	29%
Credit Availability for Consumers	6	31%	26%
Limited Inventory	7	31%	43%
Consumer Confidence	8	31%	28%
Weather	9	14%	13%
Competition	10	14%	12%

Cox Automotive Dealer Sentiment Index Methodology

Derived from a quarterly survey that Cox Automotive issues to a representative sample of franchised and independent auto dealers from around the country, the Dealer Sentiment Index measures dealer perceptions of current retail auto sales and sales expectations for the next three months as "strong," "average," or "weak." The survey also asks dealers to rate new-car sales and used-car sales separately, along with various key drivers, including consumer traffic. Responses are used to calculate an index by which any number over 50 indicates that more dealers view conditions as strong rather than weak. The Q1 2024 CADSI is based on 1,018 U.S. auto dealer respondents, comprising 546 franchised dealers and 472 independents. The survey was conducted from January 30 to February 13, 2024.

Dealer responses were weighted by dealership type and sales volume to represent the national dealer population. For each aspect of the market surveyed, respondents are given an option related to strong/increasing, average/stable, or weak/decreasing, along with a "don't know" opt-out. Indices are calculated by creating a mean score in which:

- Strong/increasing answers are assigned a value of 100.
- Average/stable answers are assigned a value of 50.
- Weak/declining selections are assigned a value of 0.

Respondents who select "don't know" at a particular question are removed from the related index calculation. The total metrics reported have a +/- 3.04% margin of error.

<u>Download the full results</u> of the Q1 2024 Cox Automotive Dealer Sentiment Index.

About Cox Automotive

Cox Automotive is the world's largest automotive services and technology provider. Fueled by the largest breadth of first-party data fed by 2.3 billion online interactions a year, Cox Automotive tailors leading solutions for car shoppers, auto manufacturers, dealers, lenders and fleets. The company has 29,000+ employees on five continents and a portfolio of industry-leading brands that include Autotrader®, Kelley Blue Book®, Manheim®, vAuto®, Dealertrack®, NextGear Capital™, CentralDispatch® and FleetNet America®. Cox Automotive is a subsidiary of Cox Enterprises Inc., a privately owned, Atlanta-based company with \$22 billion in annual revenue. Visit coxautoinc.com or connect via @CoxAutomotive on X, CoxAutoInc on Facebook or Cox-Automotive-Inc on LinkedIn.

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Dealer Sentiment Index

FIRST QUARTER 2024

A Unique Market Drives Optimism

Background

- ✓ Data for the Cox Automotive Dealer Sentiment Index (CADSI) is gathered via a guarterly online survey of franchised and independent auto dealers.
- ✓ Dealer responses are weighted by dealership type and volume of sales to closely reflect the national dealer population. Data is used to calculate an index wherein a number over 50 indicates more dealers view conditions as strong or positive rather than weak or negative.
- ✓ The Q1 2024 CADSI is based on 1,018 U.S. auto dealer respondents, comprising 546 franchised dealers and 472 independents. The survey was conducted from January 30 to February 13, 2024.
- ✓ The next quarterly report will be released in June 2024. The CADSI was first published in Q2 2017.

Key Takeaways: Q1 2024

The latest Cox Automotive Dealer Sentiment Index (CADSI) shows that current market sentiment improved slightly from the fourth quarter of 2023, increasing from 40 to 42, but remains well below the 50 threshold. indicating most dealers see the current market as weak compared to strong. The index score of 42 in Q1 is down one point from Q1 2023, one year ago.

The survey's current market index is largely driven by profitability, customer traffic and costs. Of the three, profitability continues to weigh most heavily on both franchised and independent dealers, according to the latest report. At 33, the profitability index fell to its second-lowest score ever, behind only Q2 2020. After peaking at 60 in 2021, the profitability index has continued to decrease, hitting a post-pandemic low for the second straight quarter in Q1, indicating most dealers see profits as weak, not strong.

For franchised dealers, the profitability index has declined significantly from the first half of 2022, when the index was near a record high and above 80.

Beginning in the second half of 2022, the index has dropped significantly and, in Q1 2024, hit 41 – the lowest point in the survey's history excluding Q2 2020.

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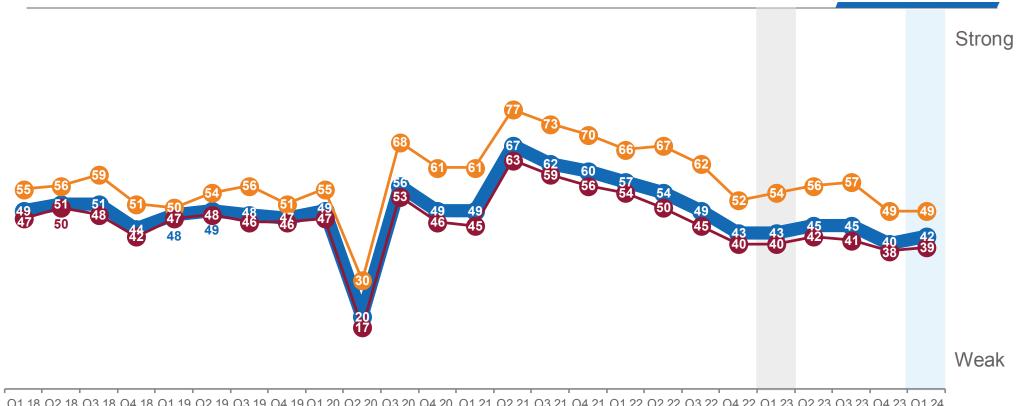
The latest CADSI suggests the mildly improving sales environment is being driven at least in some part by higher inventory levels, with the industry's short-supply issues mostly in the rear-view mirror, particularly on the new-vehicle front. The new-vehicle inventory index hit an all-time high of 75 in Q1, indicating that most franchised dealers see their inventory growing, not declining. The new-vehicle inventory index has shifted dramatically over the past two years, up from 63 in Q1 2023 and 25 in Q1 2022, when low newvehicle supply was among the most-cited factors holding back business.

When asked about factors holding back business, Interest Rates remain the top factor for all dealers, with 62% of dealers citing Interest Rates as the top factor. The Economy was identified by 55% of dealers, down significantly from 61% last quarter, while Market Conditions also fell significantly to 40% in Q1 from 48% in Q4.

Q1: How would you describe the current market for vehicles in the areas where you operate?

Dealer Sentiment Index

FIRST QUARTER 2024



Q1 18 Q2 18 Q3 18 Q4 18 Q1 19 Q2 19 Q3 19 Q4 19 Q1 20 Q2 20 Q3 20 Q4 20 Q1 21 Q2 21 Q3 21 Q4 21 Q1 22 Q2 22 Q3 22 Q4 22 Q1 23 Q2 23 Q3 23 Q4 23 Q1 24

Overall -- Franchised - Independent

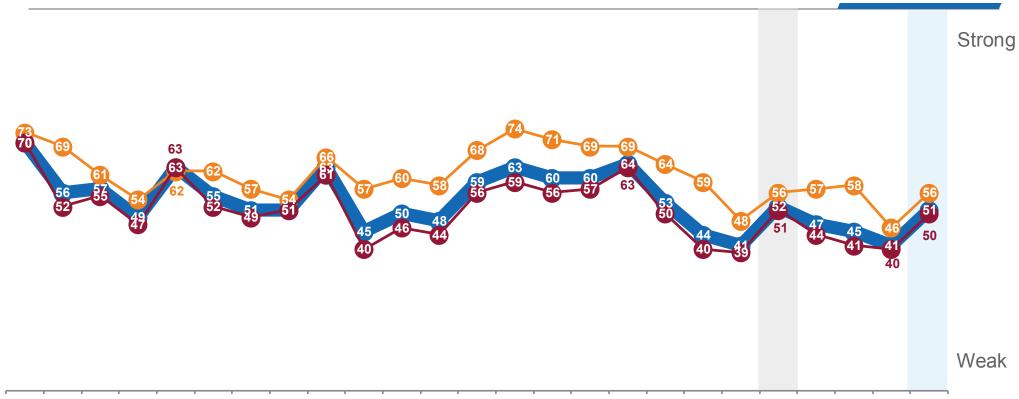
Note: Scale 1 - 100

COX AUTOMOTIVE / Research & Market Intelligence Dealer Sentiment Index Q1 2024

Q2: What do you expect the market for vehicles in your area to look like 3 months from now?

Dealer Sentiment Index

FIRST QUARTER 2024



Q1 18 Q2 18 Q3 18 Q4 18 Q1 19 Q2 19 Q3 19 Q4 19 Q1 20 Q2 20 Q3 20 Q4 20 Q1 21 Q2 21 Q3 21 Q4 21 Q1 22 Q2 22 Q3 22 Q4 22 Q1 23 Q2 23 Q3 23 Q4 23 Q1 24

Overall -Franchised -Independent

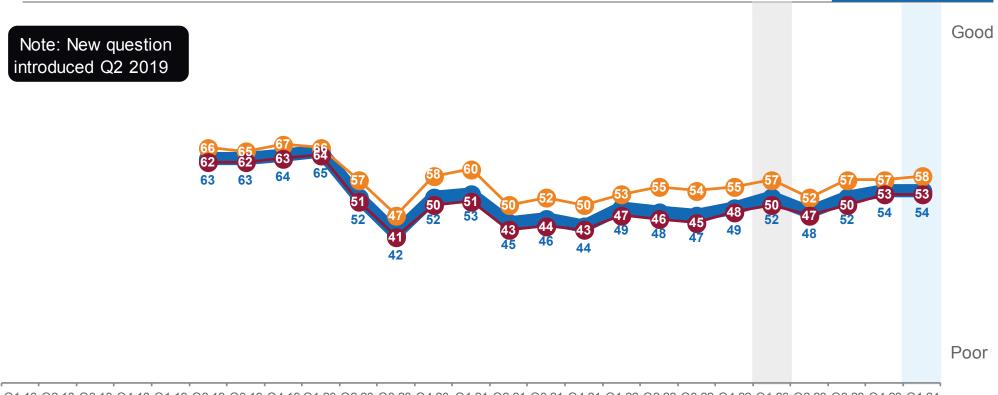
Note: Scale 1 - 100



Q13: How would you describe the current usedvehicle inventory mix?

Dealer Sentiment Index

FIRST QUARTER 2024



Q1 18 Q2 18 Q3 18 Q4 18 Q1 19 Q2 19 Q3 19 Q4 19 Q1 20 Q2 20 Q3 20 Q4 20 Q1 21 Q2 21 Q3 21 Q4 21 Q1 22 Q2 22 Q3 22 Q4 22 Q1 23 Q2 23 Q3 23 Q4 23 Q1 24

Overall → Franchised → Independent

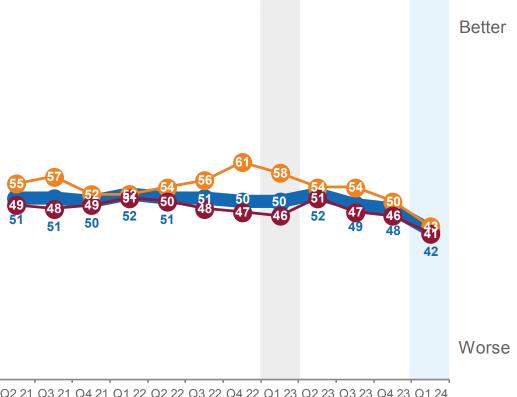
Note: Scale 1 - 100

Q19: Compared to last year, how would you describe your EV sales?

Dealer Sentiment Index

FIRST QUARTER 2024

Note: New question introduced Q2 2021



Q1 18 Q2 18 Q3 18 Q4 18 Q1 19 Q2 19 Q3 19 Q4 19 Q1 20 Q2 20 Q3 20 Q4 20 Q1 21 Q2 21 Q3 21 Q4 21 Q1 22 Q2 22 Q3 22 Q4 22 Q1 23 Q2 23 Q3 23 Q4 23 Q1 24

(EV) Electric Vehicle

Note: Scale 1 - 100

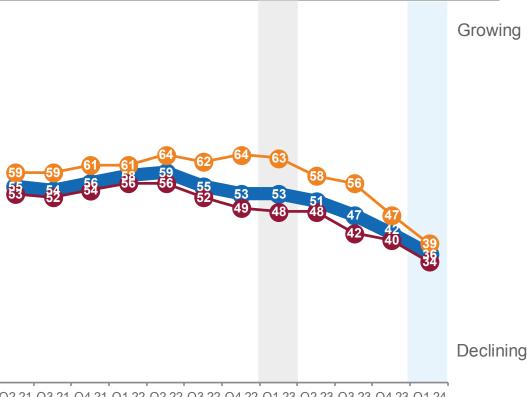


Q20: What do you expect the EV market in your area to look like 3 months from now?

Dealer Sentiment Index

FIRST QUARTER 2024

Note: New question introduced Q2 2021



Q1 18 Q2 18 Q3 18 Q4 18 Q1 19 Q2 19 Q3 19 Q4 19 Q1 20 Q2 20 Q3 20 Q4 20 Q1 21 Q2 21 Q3 21 Q4 21 Q1 22 Q2 22 Q3 22 Q4 22 Q1 23 Q2 23 Q3 23 Q4 23 Q1 24

Overall Franchised Independent

Note: Scale 1 - 100

COX AUTOMOTIVE Research & Market Intelligence Dealer Sentiment Index Q1 2024

Q23: How would you describe the effect of battery electric vehicle (BEV) tax credits are having on your dealership's BEV sales?

Dealer Sentiment Index

FIRST QUARTER 2024

Note: New question introduced Q1 2023



Negative

Positive

Q1 18 Q2 18 Q3 18 Q4 18 Q1 19 Q2 19 Q3 19 Q4 19 Q1 20 Q2 20 Q3 20 Q4 20 Q1 21 Q2 21 Q3 21 Q4 21 Q1 22 Q2 22 Q3 22 Q4 22 Q1 23 Q2 23 Q3 23 Q4 23 Q1 24

Overall → Franchised → Independent

Note: Scale 1 - 100

COX AUTOMOTIVE / Research & Market Intelligence Dealer Sentiment Index Q1 2024

Excerpt from https://www.whitehouse.gov/briefing-room/statements-releases/2024/03/11/fact-sheet-the-presidents-budget-cuts-the-deficit-by-3-trillion-over-10-years/

MARCH 11, 2024

FACT SHEET: The President's Budget Cuts the Deficit by \$3 Trillion Over 10 Years

President Biden believes that investing in America, growing the economy from the middle out and bottom up, lowering costs for families, and reforming our tax code to reward work and not wealth are economic and fiscal imperatives. Strong and shared growth that benefits all Americans isn't just good for working families and the economy; it will also lead to better fiscal outcomes. At the same time, President Biden believes that long-term investments in our Nation and its people should be paid for. And his Budgets have consistently_paid_for all of his investments and improved the Nation's fiscal outlook.

The President took office after his predecessor signed into law a reckless and unpaid for tax cut that was skewed to the wealthy and large corporations, adding <u>nearly \$2 trillion</u> to the deficit. Compared to when the President took office, the deficit is over \$1 trillion lower, thanks in large part to a strong economic recovery and a historic vaccination program that allowed the responsible wind-down of emergency measures. In addition, the President has enacted another roughly \$1 trillion in savings over the next decade through the Fiscal Responsibility Act, and through the Inflation Reduction Act provisions that empower Medicare to negotiate lower prescription drug prices, cap insulin at \$35 per month for seniors and people with disabilities, and make the wealthy and large corporations pay more of their fair share.

President Biden will fight to stop Republican plans to add trillions to the deficit with tax cuts skewed to big corporations and the wealthy—doubling down on their failed trickle-down tax cuts that already increased the nation's debt by trillions of dollars. Republicans have proposed making all of President Trump's tax cuts permanent, while refusing to pay for them by increasing taxes on big corporations or the wealthy. Instead, they would rather add trillions to the national debt than take back even one dollar of the \$150 billion annual rate cut corporations received under President Trump. Their plan would add more than \$3 trillion to deficits over 10 years, while providing tax cuts worth \$175,000 per year to the top 0.1 percent of Americans that have incomes over \$4.5 million.

In contrast to Republicans' plans to increase the deficit, the President's Budget improves the fiscal outlook by reducing the deficit by roughly \$3 trillion over the next 10 years by making the wealthy and large corporations pay their fair share, closing tax loopholes, cutting wasteful spending on Big Pharma, Big Oil, and other special interests, and following the Fiscal Responsibility Act. The President's Budget:

Improves the Nation's Fiscal Outlook

The President's Budget improves the Nation's fiscal outlook and reduces long-term fiscal risks by reducing the deficit, stabilizing deficits and debt as a share of the economy over the long-run, and keeping the economic burden of debt within historical norms. Specifically, the Budget reduces the deficit by around \$3 trillion over the next decade, compared to deficits without the President's policies. The deficit reduction in the Budget increases over time, with over \$500 billion of deficit reduction in 2034.

The Budget also reduces the deficit, as a share of the economy, from current levels. Under the Budget policies, the deficit would decline over the next several years, stabilizing below five percent of the economy throughout the remainder of the 10-year window. And the Budget stabilizes debt as a share of the economy over the long-run as well.

Finally, under the President's Budget, the economic burden of debt would remain in line with historical norms over the next decade. Real net interest as a share of the economy directly measures the cost of servicing the debt: resources that must go towards paying off old debt rather than investing in the future or providing services to Americans now. The Budget forecast takes into account recent increases in interest rates and projects future interest rates in line with private-sector forecasters. Nonetheless, the Budget keeps real net interest payments as a share of the economy at or below the average for the last several decades, around 1 percent of GDP, and well below the 2 percent level of the 1990s.

Reduces the Deficit by Making the Tax System Fairer and Ending Special Interest Giveaways

The President believes that the best way to reduce the deficit is to reform our tax code to reward work and not wealth, ensure that the largest corporations pay their fair share, and end giveaways to special interests. For example, the Inflation Reduction Act he signed into law cracked down on wealthy tax cheats and took critical steps forward in ensuring that large corporations pay their fair share, including a 15% minimum tax on billion-dollar corporations and a surcharge on large, publicly-traded corporations that buy back their own stock.

The Budget builds on this progress and reflects the President's ironclad belief that the wealthy and big corporations should pay their fair share—and that they shouldn't pay lower tax rates than teachers or firefighters.

To date, Republicans in Congress have put forward a much different approach, calling for more than \$3 trillion in tax giveaways skewed to the rich and large corporations and handouts to special interests.

The budget proposed by the Republican Study Committee (RSC), representing nearly 80 percent of House Republicans, shows how they would pay for those tax cuts: by slashing Social Security, Medicare, the Affordable Care Act, Medicaid, and other programs that drive economic growth and that seniors, people with disabilities, and families count on. The RSC budget would raise the Social Security retirement age, restrict eligibility for Social Security Disability Insurance, slash disability benefits for low-income adults and children with disabilities, and increase healthcare costs for millions of seniors. It also makes drastic cuts to Medicaid, the Affordable Care Act, and the Children's Health Insurance Program, which could result in tens of millions of children and families losing their health insurance.

Instead of making reckless cuts to programs that millions of Americans count on, the President's Budget takes the following steps to reduce the deficit. The President's Budget:

Makes the Wealthy Pay Their Fair Share

Requires Billionaires to Pay at Least 25 Percent of Income in Taxes. Billionaires make their money in ways that are often taxed at lower rates than ordinary wage income, or sometimes not taxed at all, thanks to giant loopholes and tax preferences that disproportionately benefit the wealthiest taxpayers. As a result, many of these wealthy Americans are able pay an average income tax rate of just 8 percent on their full incomes — a lower rate than many firefighters or teachers. To finally address this glaring inequity, the President's Budget includes a 25 percent minimum tax on the wealthiest 0.01 percent, those with wealth of more than \$100 million.

Requires Wealthy People to Pay their Fair Share Toward Medicare to Extend Medicare Solvency Indefinitely. The President's Budget extends the solvency of the Medicare Hospital Insurance (HI) trust fund indefinitely by modestly increasing the Medicare tax rate on incomes above \$400,000, closing loopholes in existing Medicare taxes, and directing revenue from the Net Investment Income Tax into the HI trust fund as was originally intended, along with savings from Medicare prescription drug reforms. Current law lets certain wealthy business owners avoid Medicare taxes on some of the profits they get from passthrough businesses.

The President's Budget closes this loophole and raises Medicare tax rates on earned and unearned income from 3.8 percent to 5 percent for those with incomes over \$400,000.

Repeals Trump Tax Cuts for the Wealthy and Reforms Capital Gains Tax to Ensure the Wealthy Pay Their Fair Share. The 2017 tax law lowered tax rates for the wealthiest Americans, delivering an average total tax cut of more than \$50,000 for the top 1% and more than \$190,000 for the top 0.1% in 2018. The Budget repeals tax cuts for the highest-income Americans, restoring the top tax rate of 39.6 percent for those making more than \$400,000 a year. It also proposes taxing capital gains at the same rate as wage income for those with more than \$1 million in income, closing the capital gains loophole that allows the wealthy to avoid ever paying tax on their appreciated investments, and finally closing the carried interest loophole that allows some wealthy investment fund managers to pay tax at lower rates than their secretaries.

Ensures That the IRS Can Continue to Collect Taxes Owed by Wealthy Tax Cheats. The Inflation Reduction Act addressed long-standing IRS funding deficiencies by providing stable, multi-year funding to improve tax compliance by finally cracking down on high-income individuals and corporations who too often avoided paying their lawfully owed taxes, and to improve service for the millions of Americans that do pay their taxes. Already, the IRS is using these resources to crack down on tax evasion by the wealthy and big businesses. It has collected more than \$500 million in unpaid taxes from fewer than 2,000 delinquent millionaires, is recouping taxes from thousands of millionaires who did not fulfill their basic civic duty by filing a tax return, and is cracking down on high-end tax evasion like deducting personal use of corporate jets as a business expense. At the same time, it is improving customer service and modernizing IT infrastructure. The President's Budget would restore the full Inflation Reduction Act investment and provide new funding over the long-term to continue cutting the deficit by making sure that wealthy Americans and big corporations pay the taxes they owe through tax compliance initiatives and to continue improving service for taxpayers who are just trying to pay what they owe.

Makes Large Corporations Pay Their Fair Share

Raises Tax Rates for Large Corporations. Corporations received an enormous tax break in 2017. While their profits soared, their investment in their workers and the economy did not. Their shareholders and top executives reaped the benefits, without the promised trickle down to workers, consumers, or communities. The President's Budget would set the corporate tax rate at 28 percent, still well below the 35 percent rate that prevailed prior to the 2017 tax law. In addition, the Budget would raise the Inflation Reduction Act's corporate minimum tax rate on billion-dollar corporations that the President signed into law from 15 percent to 21 percent, ensuring the biggest corporations pay more of their fair share. These policies are complemented by other proposals to incentivize job creation and investment in the United States to help ensure broadly shared prosperity.

Cracks Down on Tax Avoidance by Large Multinationals, including Big Pharma. For decades, countries have competed for multinational business by slashing tax rates, at the expense of having adequate revenues to finance core services. Thanks in part to the Administration's leadership, more than 130 nations signed on to a global tax framework to finally address this race to the bottom in 2021. Many of our international partners, including many of the world's largest economies, have implemented or will soon implement this transformational agreement. The President's Budget proposes to do the same by reforming the international tax system to reduce the incentives to book profits in low-tax jurisdictions, stopping corporate inversions to tax havens, and raising the tax rate on U.S. multinationals' foreign earnings from 10.5 percent to 21 percent. These reforms would ensure that profitable multinational corporations, including Big Pharma, pay their fair share.

Denies Corporate Tax Breaks for Million Dollar Executive Compensation. Executive pay has skyrocketed in recent decades, with CEO pay averaging more than 300 times that of a typical worker in 2022. The 2017 tax law's corporate tax cuts only made this problem worse, producing massive boosts to executive compensation

while doing nothing for low- and middle-income workers. While corporations can choose to give huge pay packages to their executives, President Biden believes that they don't deserve a tax break when they do. His Budget proposes new policy to deny deductions for all compensation over \$1 million paid to any employee of a C corporation, which would discourage companies from giving their executives massive pay packages and help level the playing field across C corporations.

Ends Wasteful Spending to Special Interests

Negotiates Lower Drug Prices and Expands Access to Prescription Drugs. Thanks to action taken by this Administration, millions of seniors and people with disabilities are saving money on their drug costs – including \$35 insulin, free vaccines, and out-of-pocket costs capped at about \$3,500 starting in 2024. Medicare is also negotiating lower drug prices for the first time ever, starting with ten of the costliest, most widely used drugs used to treat blood clots, cancers, arthritis, diabetes, and more. The Budget builds on this success by significantly increasing the pace of negotiation, bringing more drugs into negotiation sooner after they launch, expanding the Inflation Reduction Act's inflation rebates and \$2,000 out-of-pocket prescription drug cost cap beyond Medicare and into the commercial market, and by taking other steps to build on the Inflation Reduction Act drug provisions. In addition, the Budget extends the \$35 cost-sharing cap for a month's supply of a covered insulin product to the commercial market. For Medicaid, the Budget includes proposals to ensure Medicaid and the Children's Health Insurance Program (CHIP) are prudent purchasers of prescription drugs, such as authorizing HHS to negotiate supplemental drug rebates on behalf of interested States in order to pool purchasing power. The Budget also limits Medicare Part D cost-sharing for high-value generic drugs, such as those used to treat hypertension and high-blood pressure, to no more than \$2 for Medicare beneficiaries. These reforms will not only cut costs for the Federal government by \$200 billion; they will also save billions of dollars for seniors and people with disabilities.

Eliminates Tax Subsidies for Oil and Gas. The President is committed to ending tens of billions of dollars of federal tax subsidies for oil and gas companies. Even as they benefit from billions of dollars in special tax breaks, oil companies have failed to invest in production. For the last two years, they have realized record profits, but instead of lowering prices for consumers or investing these funds, they have undertaken record stock buybacks, mergers, and acquisitions that benefited executives and wealthy shareholders. The Budget eliminates special tax treatment for oil and gas company investments, as well as other fossil fuel tax preferences.

Lowers Medicaid Spending by Addressing Excessive Payments to Medicaid Managed Care Organizations. The Budget will lower Medicaid costs by over \$10 billion by requiring that insurance companies pay Medicaid back when they charge it far more than they actually spend on patient care. Currently, only about half of states require private insurance companies that provide Medicaid coverage to pay money back when they realize outsize profits. Without this requirement, insurance companies are keeping millions of dollars each year in excessive payments. The Budget would apply this requirement nationwide, consistent with similar requirements in Medicare Advantage and Affordable Care Act plans. With it, insurance companies will no longer be able to charge for unnecessary administrative expenses or sacrifice quality patient care to increase their profit margins, and if they charge too much, they will have to pay it back to the Medicaid program rather than keeping the profits and, in some cases, making larger payments to shareholders.

Eliminates Tax Subsidies for Real Estate. The Budget closes the "like-kind exchange" loophole, a special tax subsidy for real estate. This loophole lets real estate investors – but not investors in any other asset – put off paying tax on profits from deals indefinitely as long as they keep investing in real estate. This amounts to an indefinite interest free loan from the government. Real estate is the only asset that gets this sweetheart deal.

Eliminates Tax Subsidies for Cryptocurrency Transactions. The Budget eliminates a special tax subsidy for crypto currency and certain other transactions. Right now, crypto investors aren't subject to the same rules of

the road that investors in stocks or other securities have to follow, allowing them to report excessive losses. For example, a crypto investor – unlike an investor in stocks or bonds – can sell a cryptocurrency at a loss, take a substantial tax loss to reduce their tax burden, and then buy back that same cryptocurrency the very next day. The Budget eliminates this tax subsidy for crypto currencies by modernizing the tax code's anti-abuse rules to apply to crypto assets just like they apply to stocks and other securities.

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https://www.whitehouse.gov/briefing-room/statements-releases/2024/03/07/fact-sheet-president-biden-is-fighting-to-reduce-the-deficit-cut-taxes-for-working-families-and-invest-in-america-by-making-big-corporations-and-the-wealthy-pay-their-fair-share/
MARCH 07. 2024

FACT SHEET: President Biden Is Fighting to Reduce the Deficit, Cut Taxes for Working Families, and Invest in America by Making Big Corporations and the Wealthy Pay Their Fair Share

President Biden is fighting to make the tax system fairer while Republicans continue to push tax cuts for the wealthy and big corporations. The President's plan delivers tax cuts for families with children and working Americans, invests in America, and reduces deficits by trillions of dollars by enacting a new billionaire minimum tax and cracking down on multinational companies shifting jobs and profits overseas.

Since taking office, President Biden has fought to build a fairer tax system that rewards work, not wealth; asks big corporations and the wealthy to pay their fair share; and requires all Americans to play by the same rules and pay the taxes they owe. Despite Republican opposition, President Biden <u>secured</u> historic legislation to make our tax code fairer—from enacting a 15% corporate minimum tax so that billion-dollar companies can't get away with paying \$0 in federal income taxes to giving the Internal Revenue Service (IRS) the tools it needs to make wealthy tax cheats pay the taxes they owe.

President Biden will fight to stop Republican plans to add trillions to the deficit with tax cuts skewed to big corporations and the wealthy—doubling down on their failed trickle-down tax cuts that already increased the nation's debt by trillions of dollars. Republicans have proposed making all of President Trump's tax cuts permanent, while refusing to pay for them by increasing taxes on big corporations or the wealthy. Instead, they would rather add trillions to the national debt than take back even one dollar of the \$150 billion annual rate cut corporations received under President Trump. Their plan would add more than \$3 trillion to deficits over 10 years, while providing tax cuts worth \$175,000 per year to the top 0.1 percent of Americans that have incomes over \$4.5 million. President Biden supports continuing tax cuts for families making less than \$400,000, but opposes extending tax cuts or restoring tax breaks for those making more than \$400,000 per year. And he believes that any extensions should be paid for by asking big corporations and the wealthy to pay their fair share.

While big corporations and the wealthy will pay more in taxes under President Biden's policies, President Biden opposes tax increases on middle-class families. He has pledged that under his Administration, no one earning less than \$400,000 will pay an additional penny in federal taxes—not one penny.

Making Big Corporations Pay Their Fair Share

President Biden has secured major reforms to crack down on big corporations paying little or nothing in taxes and on stock buybacks that provide large, low-tax payouts to wealthy investors and CEOs. President Biden's tax plan would build on this progress by finally making big corporations pay their fair share in taxes:

- Raising the corporate tax rate to 28% and the corporate minimum tax to 21%. President Biden believes large corporations should pay their fair share, and is committed to reversing the massive tax giveaway to big corporations that Republicans enacted in 2017. President Biden would raise the corporate tax rate to 28%. He would also ensure that billion-dollar corporations pay at least 21% of their income in taxes, building on the Inflation Reduction Act's (IRA) corporate minimum tax.
- Cracking down on tax avoidance by large multinationals and Big Pharma. For too long, big multinationals have moved jobs overseas and stashed their profits in tax havens. The 2017 Republican tax giveaway failed to fix these problems, instead giving windfalls to Big Pharma. President Biden negotiated a historic agreement with over 130 countries that would enable the U.S. and its partners to ensure Big Pharma and other multinationals pay at least a minimum tax rate. He is calling on Congress to implement the agreement with a 21% rate on multinationals, with almost one-fifth of the revenue coming from Big Pharma, according to analysis it funded.

- Denying corporate tax breaks for multi-million-dollar executive compensation. Executive pay has skyrocketed in recent decades, with CEO pay <u>averaging</u> more than 300 times that of a typical worker in 2022. The corporate tax cuts in the 2017 Republican tax law only made this problem worse, giving executives huge raises <u>while</u> doing nothing for low- and middle-income workers. When corporations give huge pay packages to their executives, President Biden believes they don't deserve a tax break. That's why he's proposing to deny corporations a tax deduction when they pay over \$1 million to any employee.
- Quadrupling the stock buyback tax. In response to the surge in corporate stock buybacks after the Trump
 tax cuts, President Biden signed into law a surcharge on stock buybacks that encourages businesses to
 invest in their growth and productivity as opposed to funneling tax-preferred profits to wealthy and foreign
 shareholders. President Biden would quadruple the stock buyback tax from one percent to four percent
 to address the continued tax advantage for buybacks and encourage corporations to invest in
 productivity and the broader economy rather than windfalls for investors.
- Cracking down on corporate jet loopholes. President Biden believes corporations and wealthy people who use corporate and private jets should pay their fair share. That's why he would eliminate a tax break that gives preferential treatment to corporate jets, compared to commercial aircraft. He would also increase the fuel tax on corporate and private jet travel, so that corporate executives and other wealthy Americans pay their fair share for the use of airspace and other public services related to air travel.

Making the Wealthy Pay Their Fair Share

President Biden has already secured funding for the Internal Revenue Service (IRS) that is enabling it to crack down on wealthy and big business tax cheats. The IRS has used this funding to collect more than \$500 million in unpaid taxes from fewer than 2,000 delinquent millionaires, launch enforcement action against 25,000 millionaires who have not filed a tax return since 2017, and crack down on high-end tax evasion like deducting personal use of corporate jets as a business expense. In total, the IRS is projected to collect hundreds of billions of dollars in additional revenue over the next decade thanks to this investment. President Biden's tax plan would build on this progress with reforms that will finally make the wealthiest Americans pay their fair share:

- Requiring billionaires to pay at least 25 percent of income in taxes. Billionaires make their money in ways that are often taxed at lower rates than ordinary wage income, or sometimes not taxed at all, thanks to giant loopholes and tax preferences that disproportionately benefit the wealthiest taxpayers. As a result, many of these wealthy Americans are able to pay an average income tax rate of just 8 percent on their full incomes—a lower rate than many firefighters or teachers. To finally address this glaring inequity, the President is proposing to levy a 25 percent minimum tax on the wealthiest 0.01 percent, those with wealth of more than \$100 million.
- Requiring the wealthy to pay their fair share toward Medicare to extend Medicare solvency. President
 Biden has a plan to protect Medicare for future generations by making the wealthy pay their fair share
 instead of cutting benefits or raising costs for beneficiaries. He would modestly increase the Medicare tax
 rate on income above \$400,000, close loopholes in existing Medicare taxes that allow some high-paid
 professionals and wealthy business owners to avoid the tax, and direct all Medicare tax revenue into the
 Medicare Hospital Insurance (HI) Trust Fund as was originally intended. These reforms would help
 extend the life of the Medicare HI Trust Fund.
- Ensuring that the IRS can continue to collect taxes owed by wealthy tax cheats. After years of chronic underfunding, President Biden's IRA provided the IRS with the resources it needs to finally crack down on wealthy tax cheats and corporations who too often avoided paying their lawfully owed taxes. The IRS is already using these resources to collect hundreds of millions of dollars in unpaid taxes from delinquent millionaires, recoup taxes from thousands of millionaires who did not fulfill their basic civic duty by filing a tax return, and crack down on high-end tax evasion like deducting personal use of corporate jets as a business expense. At the same time, the IRS is improving customer service, modernizing IT, and protecting small businesses and taxpayers earning less than \$400,000 from increased audit risk.

President Biden would raise hundreds of billions of dollars by protecting IRA funding from Republican cuts and extending it after it is exhausted so that the IRS can continue to build on this progress and crack down on wealthy tax cheats.

Cutting Taxes for Working Families and the Middle Class

President Biden's tax cuts <u>cut</u> child poverty in half in 2021 and are saving millions of people an average of about \$800 per year in health insurance premiums today. Going forward, in addition to honoring his pledge not to raise taxes on families earning less than \$400,000 annually, President Biden's tax plan would cut taxes for middle- and low-income Americans by \$765 billion over 10 years, including by:

- Increasing the Child Tax Credit for 66 million children. President Biden's expansion of the Child Tax Credit cut child poverty nearly in half to a historic low and narrowed racial disparities in access to the credit in 2021, but Congressional Republicans insisted on raising taxes on families with children by letting it expire. The President would restore the expanded Child Tax Credit, lifting 3 million children out of poverty and cutting taxes by an average of \$2,600 for 39 million low- and middle-income families that include 66 million children. President Biden would also permanently ensure that the kids of parents earning low wages receive the full Child Tax Credit, making 18 million children newly eligible for the full credit. The Child Tax Credit expansion would support 2 million children living with a caregiver who is at least 60 years old. It would also provide breathing room for day-to-day expenses by allowing families to receive their tax credit through monthly payments.
- Cutting taxes for 19 million working-class Americans. By strengthening the Earned Income Tax Credit for low-paid workers who aren't raising a child in their home, the President's plan would cut taxes by an average of \$800 per year for 19 million working individuals or couples. That includes 2 million older workers age 65 and older and 5 million young adults age 18 to 24 who would be newly eligible for the credit.
- Making lower health insurance premiums permanent. With enrollment in affordable health coverage at
 an <u>all-time high</u>, the President is committed to building on the remarkable success of the Affordable Care
 Act (ACA) and IRA by making permanent his expansion of the premium tax credit, which is saving
 millions of people an average of about \$800 per year in health insurance premiums this year.

In addition, President Biden's plan will extend all middle-class tax cuts; as the President has repeatedly promised, he will not raise taxes on anyone making less than \$400,000 per year. He will fully pay for these extensions with additional reforms to make the wealthy and corporations pay their fair share, so that they do not add to the debt. And he opposes extending tax cuts or restoring tax breaks for those making more than \$400,000 per year.

The Congressional Republican Plan: Adding Trillions to Deficits With Tax Cuts Skewed to the Wealthy and Big Corporations

Republicans are working to make all of former President Trump's tax cuts permanent, adding more than \$3 trillion to the debt over the next 10 years with unpaid-for tax cuts that are skewed to the wealthy and large corporations. On top of extending the Trump tax cuts for the wealthy and protecting tax cuts for big corporations, the Congressional Republican tax plan would:

Allow the wealthy and big corporations to avoid paying their fair share. Congressional Republicans
have <u>consistently</u> tried to repeal President Biden's policies that are making big corporations pay at least
15 percent of income in tax and ensuring wealthy tax cheats pay the taxes they owe. By repealing
President Biden's corporate minimum tax, Congressional Republicans would <u>enable</u> some billion-dollar
corporations to go back to paying no federal income tax at all. And by gutting President Biden's
investment in enforcing our tax laws, Congressional Republicans would take us back to a two-tiered tax

system where hard-working Americans pay the taxes they owe, and wealthy tax cheats are able to evade their tax obligations under the law.

- Raise taxes on millions of middle-class and working families. Republican efforts to repeal President Biden's improvements to the ACA premium tax credits would increase taxes by an average of about \$800 for millions of Americans, especially older people and self-employed people. The Republican plan would also repeal the IRA's clean energy tax credits, which would raise taxes by thousands of dollars for families installing a heat pump or solar panels.
- Give windfall tax cuts to billionaires. Congressional Republicans have <u>proposed</u> legislation to give a new tax cut skewed to billionaires by allowing the wealthiest 0.1% of Americans—those with assets worth more than \$13.6 million per person (\$27.2 million per couple)—to pass on wealth to their heirs entirely tax free. Congressional Republicans are fighting to repeal the estate tax—even though it does not apply to middle-class families—in order to give more tax relief to billionaire families.

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CANADA 2024 SALARY GUIDE & HIRING TRENDS

Navigating labour dynamics in 2024



Welcome to the Hays 2024 Canada Salary & Hiring Trends report!

For over a decade, we've been committed to providing you with valuable insights. **Our mission isn't just about filling job vacancies**; it's about equipping you with the knowledge to stay ahead in a dynamic market. Whether you're a seasoned professional or a rising star, this report is your compass for navigating the ever-evolving world of work.

In 2022 we told you 60% professionals were going to leave, and that year Canadian vacancies were 75% higher than 2019. In the US, where we saw the same percentage of people wanting to leave, 71 million jobs had to be filled, in a workforce of 161 million working Americans.

The number of professionals intending to leave their job this year is the highest that we have ever seen (71%), which means managers need to prepare for a potential new wave of resignations.

It's unsurprising when we are dissatisfied or when we are stressed, we are prone to change, we are prone to change. Following a year of layoffs and further inflation pressures, workers are dissatisfied with their compensation, benefits, and just generally fed up.

Do you know who doesn't worry about the satisfaction levels? A robot.

While the robots are not taking away our jobs... yet, employers seriously need to consider upskilling their employees in Al. You can either learn to use Al and thrive or keep your head in the sand and get run over by your competition. You probably have employees who are putting entire client lists, or presentations into an Al tool and asking for a summary, or research assistant. And that's a risk, that some, like the New York Times, are taking very seriously. But our research suggests many are not.

There's a lot of press now about why we should worry about DE&I programs. Is this just a woke agenda, or should we really be worried? In short, yes you should worry. **Not only is DE&I good for business, it's also good for the wellbeing of the people that work in the company, and it encourages innovation, problem solving and contributes positively to social impact.**

I can also tell you from a Hays perspective, that it helps you to attract people. Our recruiters are on the front line of the talent market, and they can tell you that candidates are increasingly looking for employers who value and promote diversity, equity, and inclusion. **They want to work for organizations that reflect their values, their identities, and their aspirations.** They want to work for organizations that are not only diverse, but also inclusive and equitable.

These challenges are not just messing with the mood and performance of teams, but also the ability of organizations to attract, keep, and grow the best talent in the market.

Change is inevitable, but progress is optional. We can either resist the new forces that are shaping the world of work, or we can harness them to create a better future. We hope you find this guide useful and interesting, and that it helps you make smart decisions about your career and your organization.



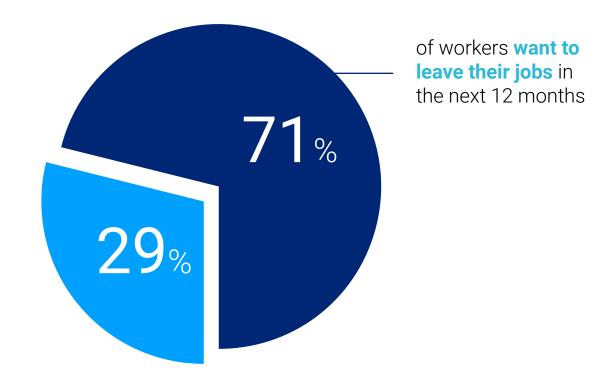
Travis O'RourkePresident Hays Canada



QUIET QUITTING IS GETTING LOUD

Quiet quitting was the dominant theme in 2023, defined as 'putting in no more time, effort, or enthusiasm than necessary' this trend is evident in labour productivity, which has declined nationally in six consecutive quarters.

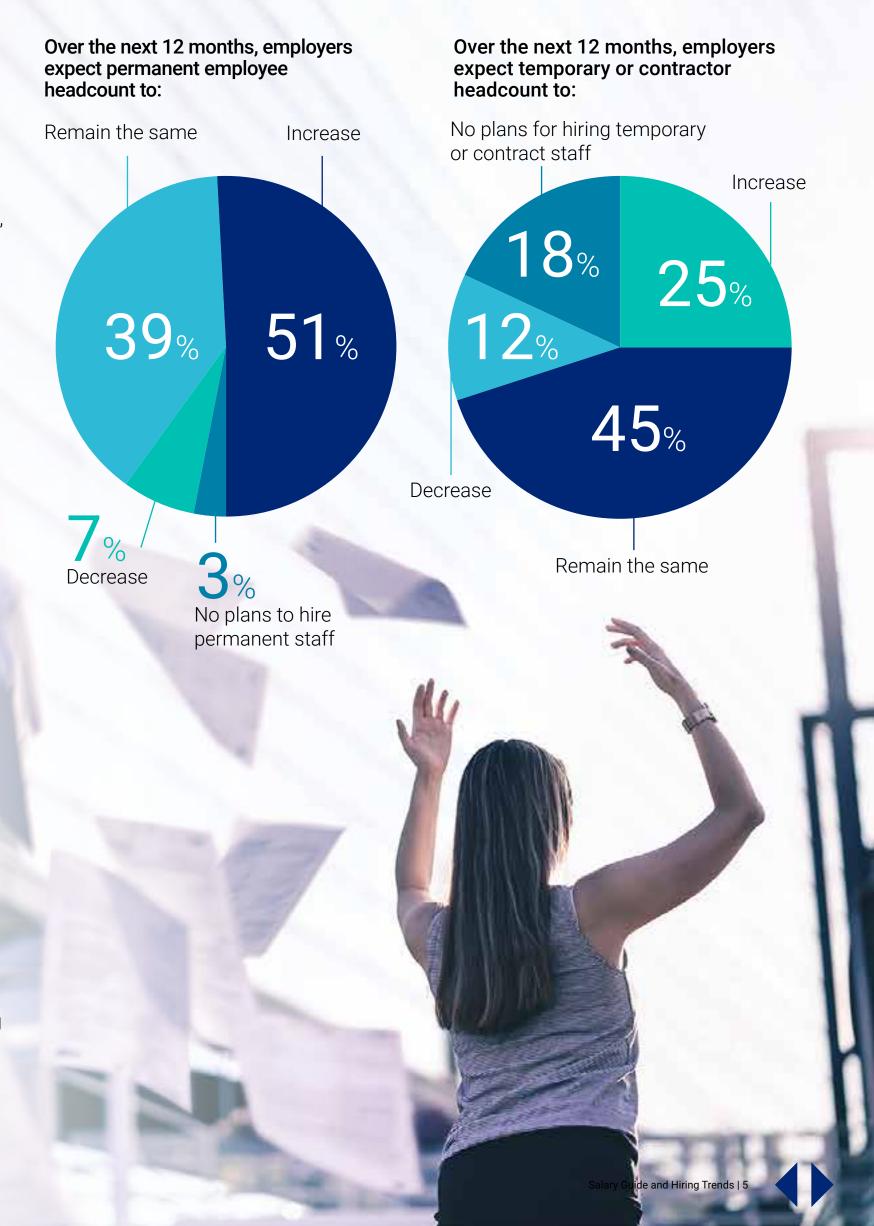
But this quiet quitting trend could be about to turn into real quitting. More people than ever are considering quitting their jobs and looking for better opportunities elsewhere. With nearly three quarters of **employees considering leaving their current roles**.



The closest to this we've ever seen was in our 2022 guide, when 61% of workers told us they wanted to leave their jobs. In that year we saw the real great resignation, with job postings increasing by 21% on top of 2021's already high levels. 2022 vacancies were some 75% higher than pre-pandemic 2019. Leaving Canada with a vacancy rate increase from 3.2% in 2019 to 5.4% in 2022.

And as the economy recovers this will only get worse. As 25% of the workers that answered they don't intend to leave their jobs this year, they would consider leaving when the economy and unemployment stabilize, increasing the potential leavers to 78%.

And as our data reveals what appears to be an end to the layoffs, with 51% even intending to increase their headcounts, job opportunities in 2024 could be about to rise, giving these employees ample opportunity to make the move.



NAVIGATING THE UNCHARTED

Change is our constant companion as we navigate the complex and dynamic landscape of workforce trends. Whether it's the next great resignation or the evolution of the quiet quitting phenomenon, something needs to change between workers and employers.

As we move forward, we have a unique opportunity to leverage our resilience and embrace the new possibilities that lie ahead. Let us not try to return to the ways of old, but rather reimagine our work as a place where prosperity and purpose go hand in hand.

What you need to know:

- 1. Employee dissatisfaction is a prevalent theme, with **71% contemplating leaving their current positions** due to stagnant wages, job role dissatisfaction, and perceived benefits inadequacies. This emphasizes the need for organizations to reevaluate.
- 2. To thrive in this transformative era, **managers must embrace Al's potential. Considering the potential for it's use in their teams**, and what support their people will need to leverage it's benefits safely and effectively.
- 3. Diversity, Equity, and Inclusion (DE&I) are central to talent attraction, but a gap exists between policies and implementation. By listening to and addressing the requests of their employees, organizations can foster a more diverse and inclusive workplace culture, as well as improve employee engagement, satisfaction, and performance.

Prioritizing employee well-being and how you enable all your people to thrive and embrace change will be instrumental in navigating the **future of work successfully**.



Retirement 2024: 28% of Americans Have \$0 Saved for Their Golden Years

6 MIN READ

March 12, 2024

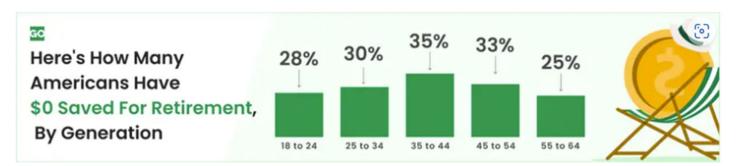
By Andrew Lisa

Many Americans are stumbling toward golden years that will be heavily tarnished.

A new GOBankingRates survey of more than 1,000 adults found that 28% of people have <u>nothing</u> saved for the <u>future</u>, 39% aren't contributing to a retirement fund and another 30% don't think they'll ever be able to retire.

While these numbers worry the experts, they don't shock them.

"The statistic that 30% of Americans have \$0 saved for retirement is alarming but not surprising," said retirement planning expert Mike Kojonen, founder and owner of Principal Preservation
Services. "Through countless consultations, I've observed a prevalent lack of awareness about the cost of retirement and a significant underestimation of how much needs to be saved."



People Have a Good Idea of What They'll Need, but Most Aren't Anywhere Close

The study found that a quarter of people think they can retire with less than \$500,000. Another quarter think it will take somewhere between half a million and a million. Another 30% expect their retirement to cost higher in the seven figures.

But there's a huge disconnect between what people think they'll need and what they have saved.

Nearly three out of four people — 71% — are heading toward retirement with five-figure nest eggs at best. Ten percent have \$50,000 to \$100,000, 33% have less than \$50,000 and 28% have exactly zero dollars saved for retirement.

While it might be unsurprising and understandable that 28% of the adults ages 18-24 have no retirement savings, most older adults aren't doing much better. Between 25% and 35% of all demographics between the ages of 18 and 64 report having nothing saved for their golden years.

Many Pass Up Valuable Tax-Advantaged Savings Accounts

Unlike your brokerage account, retirement funds enjoy a special tax status that shelters your savings from the IRS. With pre-tax accounts like 401(k)s and traditional IRAs, you'll pay taxes on late-life withdrawals, but every dollar you contribute reduces your taxable income. With after-tax Roth accounts, you pay nothing on your gains after 59 1/2 and can even tap your contributions before then — but many people are missing out on both.

Thirty-nine percent — more than triple the second-biggest group — contribute nothing to tax-advantaged retirement accounts. The No. 2 largest share, just under 13%, contributes only 1% to 3% of their income. Another roughly 13% contribute a healthier 4% to 6%.

Lack of Access or Lack of Initiative?

Financial expert Edward Piazza, president of <u>Titan Funding</u>, thinks much of the problem is "inadequate access to retirement savings plans, especially for those in gig or part-time employment."

While lack of access certainly plays a role, it doesn't tell the whole story.

According to the Bureau of Labor Statistics (BLS), 69% of private industry workers have access to an employer-based retirement plan but only 52% participate, for a take-up rate of just 75%.

But even those without access to employer-based funds can open self-directed retirement accounts for free with just a few dollars and just a few clicks through a no-fee brokerage or bank.

"Exploring IRAs or Roth IRAs could be beneficial for those without access to employer-sponsored retirement plans," Piazza said.

Considering how many people are under no illusions about the direness of their predicaments, you'd think that more would have taken the initiative.

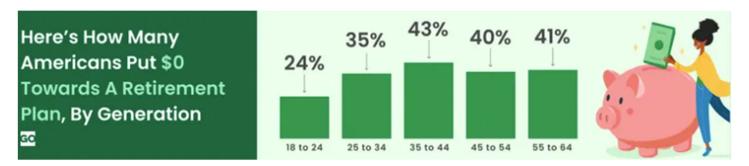
The Masses Are Unprepared — And They Know It

The study did have a silver lining. Nearly a quarter of respondents, 23%, think they'll be able to retire early. Roughly another quarter, 24%, anticipate retiring by 65, which technically is early — at least by the standards of the Social Security Administration.

But a slight majority is not as optimistic.

About 23% believe they'll have to wait to retire until after they turn 65. But almost 30% –roughly the same share as those with no nest eggs — believe they will simply never be able to retire at all.

"While alarming, the statistic that nearly 30% of Americans have \$0 saved for retirement does not surprise me," Piazza said. "This highlights a widespread financial literacy gap and underscores many challenges in balancing immediate financial needs with long-term savings goals."



The Keys Are Financial Literacy, an Early Start and a Something-Is-Better-Than-Nothing Attitude

Several experts highlighted obstacles like inflation and debt, but there was a consensus that too many people know too little about money, start saving too late, aren't consistent enough in contributing whatever little they might have and are too quick to spend on wants without treating saving for retirement as a need.

"The primary causes, in my view, stem from a blend of insufficient financial education, the absence of a proactive saving culture and the societal shift toward instant gratification, which often prioritizes current spending over future savings," Kojonen said. "From my experience, starting the conversation about retirement as early as possible is crucial. It's never too soon to begin retirement planning. To avoid this bleak late-life outcome, I advocate for increased financial literacy efforts and early intervention. Education on the basics of budgeting, the magic of compound interest and the significance of starting to save early could shift the current retirement readiness landscape."

If You're Young, Start Now; If You're Not, Get Help

The study revealed that Gen Z is getting an early jump and quickly moving in the right direction. An impressive 16% of 18- to 24-year-olds put 4% to 6% of their incomes in a tax-advantaged retirement account, more than any other demographic. Another 8% contribute a hefty 7% to 9% — also more than any other age group — and one in 10 are sheltering 10% of each paycheck in a tax-privileged account for their golden years.

They're on the right track; and, with time on their side, compounding will do most of the heavy lifting for them if they stick with it.

The older sets, however, don't have the luxury of four or five decades of growth. Their best bet is to make every dollar work as hard as possible by investing some of those dollars in professional help.

"Consulting with a retirement planning professional can provide customized strategies tailored to individual needs and goals," Kojonen said. "Many people come into our offices with retirement accounts but lack a comprehensive retirement plan. This gap between having funds and having a strategy to utilize those funds effectively for a solvent retirement is where many fall short.

"I emphasize the importance of understanding one's financial situation thoroughly — knowing what you own and owe. Implementing simple yet seldom-discussed strategies, such as taxefficient withdrawals and timing Social Security benefits, can significantly impact the longevity of retirement savings."

More From GOBankingRates

https://www.globaltimes.cn/page/202403/1308941.shtml

7.68 million couples register marriage in China in 2023, an increase of 12.4% y-o-y

By Global Times Published: Mar 16, 2024 02:59 PM



Photo: CFP

Some 7.68 million couples registered marriage in China in 2023, increasing 845,000 couples or 12.4 percent from the previous year, according to data released by China's Ministry of Civil Affairs on Friday.

That is the first rebound in recent years as the number of marriages nationwide has been declining for several consecutive years since reaching a peak of 13.469 million couples in 2013.

Registrations for divorce fell 286,000 to 2.88 million, down 9.9 percent from number of 2022.

In the first three quarters of 2023, the number of marriage registrations nationwide increased by 245,000 couples compared to the same period in 2022, while the number of divorce registrations increased by 330,000 couples year-on-year. This implies that in the fourth quarter of 2023, the number of marriage registrations nationwide increased by 600,000 couples year-on-year, while the number of divorce registrations decreased by 616,000 couples year-on-year.

The continuous decline in marriages can be dated back to the drop of population in late 1980s and early 90s, leading to a smaller population of those at the right age to marry.

The rebound in 2023 has been attributed to the country's economic recovery and "back-on-track" everyday life in the post-epidemic period. The postponed demand for marriage during the epidemic has now been caught up on, and the implementation of a series of policies encouraging marriage and childbirth in recent years has taken effect, observers said.

They believe the increase in the number of marriages in 2023, combined with the impact of the auspicious Year of the Dragon in the Chinese zodiac, is expected to bring an increase in the birth population in 2024.

Over the long run, factors such as a decrease in the number of people of marriageable age, a delay in the age of first marriage, and changes in marriage and childbearing concepts will impact the overall number of marriages and number of newborns in China.

Global Times

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Surprise Bakken insight

"year-over-year, a new well used to decline 65%, it's <30% probably these days" ND's Helms.

Producers restricting well rates for months.

No Bakken big growth ahead but <30% 1st yr decline should help play plateau, not go quickly into decline.

#OOTT

"So, year-over-year, a new [Bakken] well used to decline 65%, it's less than 30% probably these days." North Dakota's Lynn Helms



SAF Group created transcript of comments by the North Dakota Director of Mineral Resources, Lynn Helms, Ph.D., and Justin J. Kringstad, Director North Dakota Pipeline Authority on the monthly Directors Cut webcast on March 14, 2024. https://www.dmcnds.ov/dm/foileas/directorscut

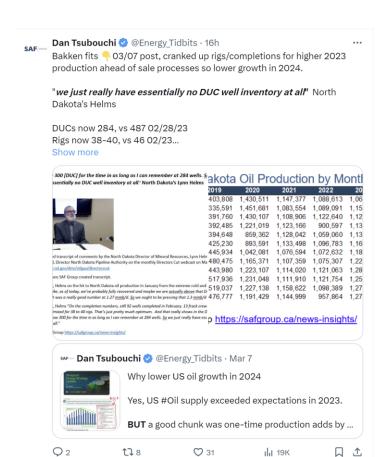
Items in "italics" are SAF Group created transcript.

At 16:35 min mark, Helms "For a new North Dakota well, it's roughly 1,600 barrels of oil a day for a new well coming on. They <u>actually bring</u> our new wells on in a restricted state these days. They generally will run an electric submersible pump in the well pretty much Day 1. And they will throttle the well back, trying to sustain that 1,600 barrels a day for 6, 8, 9 months. So they're producing these wells in a very different manner than they did 10 years <u>ago.</u> So on average 1,600 barrels a day. And the 3-miles wells in the Tier 2 geology are matching what the 2-mile and hopefully the U-Tube wells are going to do in the core area."

At 17:50 min mark, Helms "On an individual well these days, it used to be that a well would decline about 65% in the first year. That probably declines at less than half that rate now with the restricted production and turning on the artificial lift and the variable speed submersible pumps and gas lift they instill are able to match the production to the gas capture capacity. And sustain a much lower decline for a much longer period of time. So, year-over-year, a new well used to decline 65%, it's less than 30% probably these days."

Prepared by SAF Group https://safgroup.ca/news-insights/

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Last 7 wks ave 73 mmb. Seems floating normalizing at lower (<80 mmb) level as refiners/tankers had \sim 2 mts to work in longer tanker trips

Longer tanker trips = lower floating storage as OPEC keeps cuts thru Q2

Thx @vortexa @business #OOTT



Dan Tsubouchi @ @Energy_Tidbits · Mar 15
Positive for WTI #Oil over coming weeks.

321 crack spreads at \$33.00 are very big margins for refineries ie, huge incentive to maximize runs/crude input.

口土

Refineries taking as much oil as possible tends to drag up oil prices a bit.

#OOTT Thx @business





SAF Dan Tsubouchi @ @Energy_Tidbits · 7h
Shenzhen 300 on 5-week up streak.

Chinese investors hope the last two weeks small gains aren't a sign that the rally is losing steam.

Regardless, Shenzhen 300 is +12% off Feb 2/24 bottom.

Better but still down 38% off Feb 19/21 high.

Thx @business... Show more



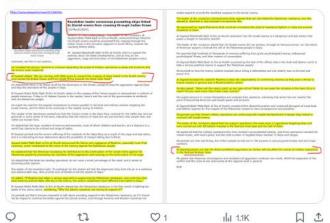
Dan Tsubouchi ② @Energy_Tidbits · 7h

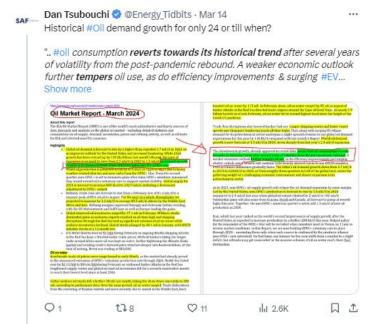
Houthis leader expanding missile/drone attack region from Red & Arabian Seas to "even across the Indian Ocean and from South Africa towards the Good Hope Road".

口土

Also stepping up criticism of Arab regimes not stepping up to help Gaza.

#OOTT





Dan Tsubouchi @ @Energy_Tidbits · Mar 14

Here's why to wonder if IEA is increasing its #Oil demand outlook to one of historical growth for longer

 \P @flacqua clearly asks on demand growth for foreseeable future , 2, 3 yrs down the line?

IEA oil head either didn't hear or chose to only speak to 2024.

#OOTT



Dan Tsubouchi @ @Energy_Tidbits · 8h EVs reality check!

"In 2024, the Cox Automotive team expects the industry to fully acknowledge the fact that the average consumer needs to be convinced on the merits of going electric, and many won't be easily persuaded"

@CoxAutomotive Stephanie Valdez Streaty.

Higher income...

Show more



Dan Tsubouchi 🤣 @Energy_Tidbits · 12h

 Q_1

For those not near their laptops, @EIAgov just released at 8:30am MT its #Oil #Gasoline #Distillates inventory as of Mar 8. Table below compares EIA data vs @business expectations and vs @APlenergy yesterday. Prior to release, WTI was \$79.30. #OOTT

口土

(million barrels)	EIA	Expectations	API
Oil	-1.54	1.00	-5.50
Gasoline	-5.66	-2.20	-3.80
Distillates	0.89	-1.05	-1.20
	-6.31	-2.25	-10.50
Note: Oil is commer	cial. So excludes a +0.	6 mmb in SPR for the Mar	8 week
Note: Included in the	oil data, Cushing had	a 0.22 mmb draw for Ma	ar 8 week
Source EIA, Bloomb	perg		
Prepared by SAF G	roup https://safgroup.	ca/news-insights/	

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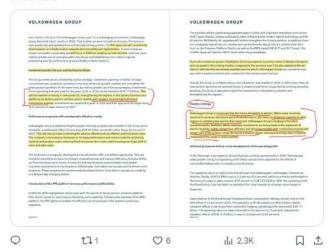
t⊋ 4 ♥ 14

SAF — Dan Tsubouchi ② @Energy_Tidbits ⋅ 17h Slower transition to EVs = ICE for longer & more Hybrids.

Volkswagen "is convinced the future of mobility is electric"

BUT Q4 reminds taking longer than expected & "highly competitive, efficient and attractive models with combustion engines will remain part of the product range...

Show more

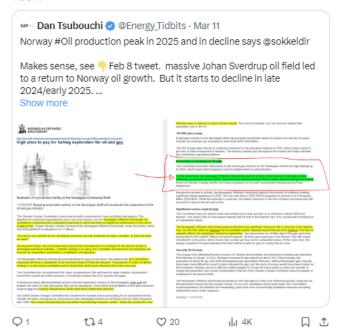


Dan Tsubouchi ♀ @Energy_Tidbits · Mar 12 ICYMI

Norway forecasts it will hit peak #Oil production in 2025 & then decline therefrom. Jan 2024 was 1.8 mmb/d.

See \P Feb 8 tweet. Giant oil field Johan Sverdrup to hit peak & begin decline ~yr-end 2024. Start of decline in giant oilfield = decline in oil for Norway.

#OOTT



SAF Dan Tsubouchi @ @Energy_Tidbits · Mar 12 Refining 101.

Lukoil drone reportedly hitting a distillation unit.

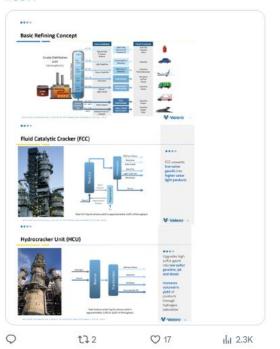
it's a critical part of refining process. See <a> @ValeroEnergy refining basics.

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□ 土

So it's hit by a drone, it means can't distill oil to send intermediate products to crackers to make finished product.

#OOTT



saF — Dan Tsubouchi ♥ @Energy_Tidbits · 6m #OPEC cuts working - Oil stocks down MoM.

Crude oil only stocks. Jan 31 at 1,318 mmb, 113 $\,$ <2015-19 ave. Down vs Dec 31 at 1,342 mmb or 86 $\,$ <2015-19 ave.

Total Oil + Products stocks. Jan 31 at 2,735 mmb, 192 <2015-19 ave. Down vs Dec 31 at 2,767 mmb, 159 <2015-19 ave

#OOTT





OPEC MOMR makes no change to #Oil demand growth of +2.25 mmb/d YoY in 2024.

Looks like Aramco CEO Sunday comments to media of his +1.5 mmb/d YoY demand growth wasn't an indicator of a change in OPEC MOMR forecast.

#OOTT



Dan Tsubouchi @ @Energy_Tidbits · 3h
Buckle up for another summer of busy airports!

"we are seeing demand continuing with great strength and I don't see any let up. the spring and summer is going to be very busy" Delta Airlines CEO Bastian on @SquawkCNBC

continued strength in premium, classic business almost to... Show more

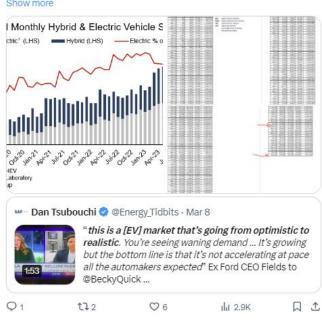




PHEV Feb 24 +59% YoY to 28,259 from 17,789.

HEV Feb 24 +60% YoY to 105,803 from 66,320

Thx @argonne for sales data.... Show more

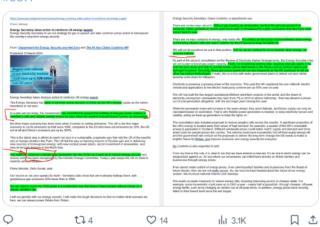


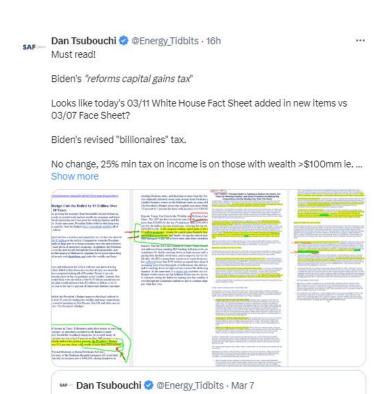
Dan Tsubouchi @ @Energy_Tidbits · 13h
Optimistic to realistic!

UK govt to support building of new #NatGas power plants as "need for continued unabated gas generation into the 2030s...."

If want energy security & 24/7 reliable, affordable power in energy transition, more #NatGas will be needed, not less.

#OOTT







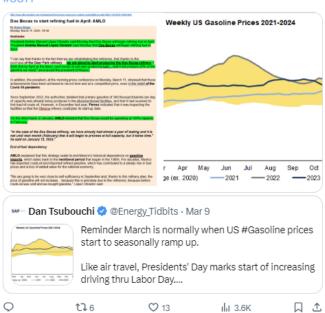


Can Biden keep a lid on normal seasonal #Gasoline price increases & avoid price spike 2022 or even 2023

AMLO 340 kbd Dos Bocas about to produce fuels so less #Oil for export ie. to Gulf Coast. • @eleconomista

19590 kbd TMX about to start, reduce Cdn oil to Gulf Coast

#OOTT





Makes sense, see ¬ Feb 8 tweet. massive Johan Sverdrup oil field led to a return to Norway oil growth. But it starts to decline in late 2024/early 2025.

Positive for #Oil post 2024.

#OOTT



Dan Tsubouchi @ @Energy_Tidbits · Mar 11

"there has been a lot of use of that [Bitcoin] and I'm not sure that i would want to take it away at this point" Former President Trump just now to @JoeSquawk @SquawkCNBC

#Bitcoin # will love it!



SAF — Dan Tsubouchi ② @Energy_Tidbits · Mar 10 China consumer not spending

"carmakers are turning to increasingly novel add-ons from beds to cooktops to boost sluggish sales.

...

口土

Top [China] EV makers are facing a slowdown in demand at home as consumers curb spending .." @business C Zhu, C Zhang #OOTT



From bloomberg.com

Houthis leader today.

Q

Dan Tsubouchi ♥ @Energy_Tidbits · Mar 10

173

"One of the most important things about the month of Ramadan is that it is not only for acts of worship on a spiritual level, voluntary acts, etc., but rather it is one of the most important seasons for jihad for the sake of God, and the reward for jihadist...

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